

South Dakota State University

Open PRAIRIE: Open Public Research Access Institutional Repository and Information Exchange

Theses and Dissertations

1939

Teacher Load in the Three, Four, and Five Teacher High Schools of South Dakota

Newton C. Staley

Follow this and additional works at: <http://openprairie.sdstate.edu/etd>

Recommended Citation

Staley, Newton C., "Teacher Load in the Three, Four, and Five Teacher High Schools of South Dakota" (1939). *Theses and Dissertations*. 1950.

<http://openprairie.sdstate.edu/etd/1950>

This Thesis - Open Access is brought to you for free and open access by Open PRAIRIE: Open Public Research Access Institutional Repository and Information Exchange. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of Open PRAIRIE: Open Public Research Access Institutional Repository and Information Exchange. For more information, please contact michael.biondo@sdstate.edu.

28558.1
2412
2.2
TEACHER LOAD

in the

THREE, FOUR and FIVE TEACHER HIGH SCHOOLS

of

SOUTH DAKOTA

by

NEWTON C. STALEY

A thesis submitted to the Faculty of The South Dakota State College of Agriculture and Mechanic Arts in partial fulfillment of the requirements for the Degree of Master of Science.

July, 1939

SOUTH DAKOTA STATE COLLEGE LIBRARY

ACKNOWLEDGMENT

The author wishes to express his sincere appreciation to Doctor C. R. Wiseman for directing this study, for his many valuable suggestions and for his criticisms which have materially aided in the development of this thesis. Gratitude is also due the author's wife, Isabelle Trotter Staley, for her cooperation and assistance in assembling the thesis, and John F. Staley for the final typing.

The author also takes this opportunity to express his appreciation to those superintendents and teachers who so willingly gave the first hand information necessary for this study.

TABLE OF CONTENTS

Chapter	Page
I. Introduction.	1
The Problem of Teacher Load.	2
Teacher Load in the Small High School. . .	4
Teacher Load Problems Discussed by the U.S. Department of Education	6
Teacher Load in the North Central Schools.	8
The Purpose of Investigation	10
II. Analysis of Studies on Teacher Load	13
Common Methods of Measuring Teacher Load .	13
Review of Studies Using Douglass Formula .	15
Reviews of Other Studies	17
III. Plan of Procedure	21
Summary of Former Study of Teacher Load. .	21
Technique of the Analysis and Development of the Questionnaire	25
Selection of Schools	28
Method of Presenting the Findings.	30
IV. School Executives' Duties Compared.	32
V. Teacher Load as Found in Three Teacher Four Year Accredited High Schools	37
Part I. General Conditions Affecting Teacher Load.	38
Professional Training.	38
Pupil-Teacher Ratio.	42
Days on Duty Other Than Regular School Term.	45
Part II. Items Directly Influencing Teacher Load	46

Chapter	Page
Classroom and Study Hall Duties.	47
Extra-Curricular Activities.	49
Miscellaneous School Duties.	52
Committee Duties	55
Community Duties	56
Part III. Evaluation of Teacher Load for Three Teacher High Schools.	58
Summation of Load Items.	59
Teacher Load Calculated According to Douglass' Formula.	61
Teachers' Personal Opinion of Load	63
Summary.	64
VI. Teacher Load as Found in Four Teacher Four year Accredited High Schools	66
Part I. General Conditions Affecting Teacher Load.	66
Professional Training.	67
Pupil-Teacher Ratio.	70
Days on Duty Other Than Regular School Term.	74
Part II. Items Directly Influencing Teacher Load	75
Classroom and Study Hall Duties.	75
Extra-Curricular Activities.	78
Miscellaneous School Duties.	80
Committee Duties	84
Community Duties	85
Part III. Evaluation of Teacher Load for Four Teacher High Schools	87
Summation of Load Items.	87
Teacher Load Calculated According to Douglass' Formula	89
Teachers' Personal Opinion of Load	91

Chapter	Page
Summary.	92
VII. Teacher Load as Found in Five Teacher Four Year Accredited High Schools	94
Part I. General Conditions Affecting Teacher Load	94
Professional Training	95
Pupil-Teacher Ratio	98
Days on Duty Other Than Regular School Term	102
Part II. Items Directly Influencing Teacher Load.	102
Classroom and Study Hall Duties	103
Extra-Curricular Activities	106
Miscellaneous School Duties	108
Committee Duties.	110
Community Duties.	112
Part III. Evaluation of Teacher Load for Five Teacher Schools	113
Summation of Load Items	113
Teacher Load Calculated According to Douglass' Formula	116
Teachers' Personal Opinion of Load.	117
Summary	118
VIII. Comparison of the Total Weekly Load of the Three, Four and Five Teacher Schools	120
Personal Comments and Remarks of Superintendents and Teachers.	124
IX. Conclusions and Recommendations:	
Conclusions	127
Recommendations	135
Appendix:	
Questionnaire for Former Study.	144

	Page
Questionnaire for this Study of Teacher Load.	146
Letter of Transmittal to Superintendents for the Study	151
Bibliography.	152

INDEX TO TABLES

Table	Page
I. Comparison of Teacher Load for Former Study. . .	23
II. Number of Schools Selected and Questionnaires Returned.	29
III. Percent of Time and Mean Hours that Superintendents Spend on Executive and Teaching Duties	33
<u>Three Teacher Schools.</u>	
IV. College Degrees Held by Superintendents and Teachers	38
V. Number of Fields in Which Superintendents and Teachers Teach	39
VI. Frequency of Subject Matter Fields that Teachers are Prepared for and Subject Matter Fields that Teachers are not Prepared for	41
VII. Number of Pupils in Class and Study Hall Per Day.	43
VIII. Frequency of Class Size.	44
IX. Frequency of Patterns-Total Periods and Hours Per Day.	48
X. Number of Extra-Curricular Activities per Superintendent and Teacher	50
XI. Frequency and Time Consumption of Extra-Curricular Activities.	51
XII. Miscellaneous School Duties-Frequency and Time Consumption	53
XIII. Committee Duties-Frequency and Time Consumption.	55
XIV. Community Duties-Frequency and Time Consumption.	57
XV. Total Mean Load Per Week Per Teacher For Three Teacher Schools.	59
XVI. Teacher Load as Judged by Superintendents and Teachers Themselves.	64

Table	<u>Four Teacher Schools.</u>	Page
XVII.	College Degrees Held-Four Teacher Schools. . .	67
XVIII.	Number of Fields in Which Superintendents and Teachers Teach	68
XIX.	Frequency of Subject Matter Fields that were Prepared for and Subject Matter Fields not Prepared for	69
XX.	Number of Students in Class and Study Hall Per Teacher.	71
XXI.	Frequency of Class Size.	72
XXII.	Frequency of Patterns-Total Periods and Hours Per Day.	76
XXIII.	Number of Extra-Curricular Activities.	78
XXIV.	Frequency and Time Consumption of Extra- Curricular Activities.	79
XXV.	Miscellaneous School Duties-Frequency and Time Consumption	82
XXVI.	Committee Duties-Frequency and Time Consumption.	84
XXVII.	Community Duties-Frequency and Time Consumption.	86
XXVIII.	Total Mean Time Per Week Per Teacher for Four Teacher Schools	88
XXIX.	Teacher Load as Judged by Superintendent and Teachers Themselves.	91
	<u>Five Teacher Schools.</u>	
XXX.	College Degrees Held-Five Teacher Schools. . .	95
XXXI.	Number of Fields in Which Superintendents and Teachers Teach	96
XXXII.	Frequency of Subject Matter Fields that were Prepared for and Subject Matter Fields that Teachers were not Prepared	97
XXXIII.	Number of Students in Class and Study Hall Per Teacher.	99
XXXIV.	Frequency of Class Size.	100
XXXV.	Frequency of Patterns-Total Periods and Hours Per Day.	104
XXXVI.	Number of Extra-Curricular Activities Per Superintendent and Teacher	106

XXXVII.	Frequency and Time Consumption of Extra-Curricular Activities.	107
XXXVIII.	Miscellaneous School Duties-Frequency and Time Consumption	109
XXXIX.	Committee Duties-Frequency and Time Consumption.	111
XL.	Community Duties-Frequency and Time Consumption.	112
XLI.	Total Mean Load Per Week Per Teacher for the Five Teacher Schools	114
XLII.	Teacher Load as Judged by the Superintendents and Teachers themselves.	118
XLIII.	Load Items Compared in Hours and Percent for the Three, Four and Five Teacher Schools . .	121

INDEX TO FIGURES

Figure		Page
1.	How Superintendents Spent 43.4 Hours of Their Week.	35
2.	Distribution of Number of Pupils Per Class With Number of Classes.	45
3.	How the Teachers' 60 Hour Week is Spent. . .	60
4.	Distribution of Number of Pupils Per Class With Number of Classes.	73
5.	How the Teachers' 63.29 Hour Week is Spent .	88
6.	Distribution of Number of Pupils Per Class With Number of Classes.	101
7.	How the Teachers' 65.55 Hour Week is Spent .	114
8.	Comparison of Mean Load Items of the Three Groups of Schools.	122
9.	Score Card for Superintendents	142
10.	Score Card for Teachers.	143

Chapter I

Introduction

This study deals with the problem of teacher load in the three, four and five teacher, four year accredited high schools in the State of South Dakota. These schools comprise 62.7 percent of all the four year accredited high schools in the state. They represent, in general, the type of high school that most of our small communities operate; and furnish secondary education to a large majority of our rural boys and girls.

The small high schools, in order to function efficiently and satisfactorily, must meet many demands. These demands some times create quite difficult problems. One of the fundamental and underlying of all these problems is finances, which in turn influence many other problems. In the small high schools where the funds are limited, the school officials have the task of economical budget planning. Often the best qualified teachers cannot be employed because of salaries offered; and again the school is forced to operate with as few teachers as possible. Another indirect problem, influenced mostly from the financial background, is the amount of equipment, supplies and library facilities. The above mentioned problems influence and have a direct bearing on the amount of work that the teachers who are teaching in these schools have to do--or teacher load. The problem of teacher load warrants investigation, and the author interested in it, decided to

make a study of teacher load in the three, four and five teacher high schools of South Dakota.

The Problem of Teacher Load

During the development and growth of the high school little consideration was given the teacher in regard to the amount of work that each had to do. The teacher was assigned work in accordance with what had to be done, thinking little of the preparation of the teacher or of the subject matter which was to be taught. Consequently, teachers taught in fields in which they had little or no preparation. In order to teach classes in which little or no preparation had been had, the teacher must spend extra time preparing for class. Most State Education Departments now recognize the fact that teachers will be more successful if they are required to teach in a field in which at least some college training has been done. Douglass and Boardman state:

"Studies by Kirby, Huston, O'Brien and others show that the majority of high school teachers work in three or more fields, and that an alarmingly large proportion of them teach in fields in which they are not adequately trained. Rarely is a teacher adequately competent in more than two of the broad divisions of subject-matter, and teaching loads should therefore be confined to not more than two fields."(1)

Irene F. Newmann in an article "Bricks Without Straw" comments very definitely on educational deficiencies and

(1). Douglass & Boardman, Supervision in Secondary Schools, p. 487.

the problem of teacher load. First of all she proposes a plea of efficiency rather than beauty and size of building. Too many communities have the single pride in their ornate buildings. Miss Newmann comments on smaller classes as follows, "A teacher load is based on the assumption that each teacher teaches at least five classes per day. All the counsellors are so much dead wood in the matter of pupil-load and all classes they do not teach must be dealt out to those teachers who do. The result is that a load which in statistics seems to be twenty-nine or thirty pupils per teacher is actually well over forty. No teacher who really tries to accomplish much in her classes can teach two hundred or more pupils per day and teach them well."(1)

Her second plea for more efficiency in our schools is for smaller classes. Teachers who must compromise on time must also compromise on quality of subject matter taught and every compromise is an acknowledgment of partial defeat, but she has no alternative. A third plea which Miss Newmann proposes is for adequate classroom material not decoration, but equipment. For economy sake, supplies have been reduced in the public schools so drastically that teachers are handicapped at every turn. Her statement is as follows:

"We teach current events without a magazine or newspaper in the classroom. We teach modern language without a single chart or picture, except those the teacher may have bought herself. We teach the literature of the world, but our classrooms are bare of maps. This is economy."(2)

H. Leigh Baker says, "Class size does make a difference, and a significant one in the effectiveness of the high school teacher particularly in the knowledge of her pupils."(3)

(1). Irene F. Newmann, School and Society, Vol. XLIII, 1935, p. 672.

(2). Ibid., p. 673.

(3). H. Leigh Baker, Nations' Schools, Vol XVIII, Feb. 1936, p. 27.

The emphasis is not on the question of, shall the town or city have a high school, but rather, how well can the high school be made to serve the individual and the community. The teacher is the main connecting link between the pupil and the information that will need be given to the pupil. If the teacher is overworked, it is evident that the pupils will not receive the proper training. With this as a basis the problem of determining teacher load is at hand.

Teacher Load in the Small High School

Teacher load has always been a problem in the small high schools. Each year the question of what subjects to offer the student, becomes foremost in the curriculum planning for the school. Usually the academic constants become the basis upon which the program of studies is built. Together with these academic subjects is a group of subjects, elective in nature, which is offered for the purpose of rounding out the education of youth. The teacher's instructional load is made up of either one of the other or a combination of the two.

It is evident that the small high schools do have problems that are different from the larger schools in so far as instructional load is concerned. For these schools combinations and alternations are permitted to enable the small school superintendent and principal to eliminate overloading their teachers by attempting to offer too many subjects.

The South Dakota Department of Education has grouped the three, four and five teacher high schools into a group and furnished guidance information for them. Standard VIII. "The Teaching Load", under Standards of Accrediting specifies that:

"(a). The number of daily periods of classroom instruction given by any teacher shall not exceed six. The combination of classroom instruction laboratory work and study hall or assembly supervision shall be so arranged as to give each teacher at least one free period per day. (b). An average enrollment in the school in excess of thirty pupils per teacher is considered too heavy a load and a violation of the standards of accrediting. (c). It is generally accepted that one hundred fifty pupils per day per teacher is maximum load. This should not be construed to include extra-curricular activities. (d). The superintendent shall be required to spend at least one-fourth of each school day in supervision."(1)

Upon examination of the recommendations offered by the South Dakota State Department of Education, one finds that the information is for instructional load. The other duties which become part of the teachers' responsibilities are not discussed in any way. The State Department has not been concerned about a plan which might serve as a guide to avoid overloads in these cooperational duties. It would be well to have, in general, a scheme by which a teacher could compare and judge the degree of load at least as far as the major phases are concerned. This would improve the working conditions for the teacher and enable the student to receive the full value of instruction.

(1). J. F. Hines, Bulletin No. 16, Approved Programs of Studies for Three, Four and Five Teacher Secondary Schools of South Dakota, pp. 15-16.

Teacher Load Problem Discussed By the United States Department Of Education

The United States Department of Education is attempting to aid and encourage research workers in many of the educational problems of today. Because the problems require much time and effort on the part of the workers, progress is slow. An inadequacy in funds also limits investigations of a worthwhile nature. Teacher load has been to date one of the problems to which little aid has been given; however, consideration has been given to the problem.

Some of the information which the United States Office of Education gave on the subject of teacher load is given by Carpenter and Ruffi as follows:

"A common practice among investigators has been to follow the simple plan outlined by the United States Office of Education, which suggests that the total number of pupils divided by the total number of teachers gives what is technically known as teaching load."(1)

Other investigators have followed the practice of computing the load in terms of the number of pupil recitations per class equals a weekly load of six hundred twenty-five pupil recitations. Almack and Bursch comment as follows:

"An attempt should be made to meet two requirements in respect to the teacher: (a), it should be reasonably stable-that is, not vary much from day to day though the principal brings in extra tasks; and (b), it should be adjusted to the teachers' ability."(2)

(1). W. W. Carpenter and John Ruffi, The Teacher and Secondary Administration, pp. 123.

(2). John C. Almack and James F. Bursch, Administration of Consolidated and Village Schools, p. 87.

These requirements cannot be met unless the load can be measured, and unless the measurement takes into account not only what a teacher does in the class room during school hours but all of her school duties from coaching a class play to taking charge of the library. Almack and Bursch suggest to get the consensus of opinion of the teachers in the field and offer the following procedure of measurement.

"(1). Make up a list of all the school and community activities in which the teachers will be expected to share.

(2). Take a common activity, such as teaching thirty pupils English composition one hour (including the marking of the papers), as a standard.

(3). Call this standard one, and have the teachers weight all the other activities in comparison with this standard.

(4). Average the weights assigned by the teachers to find what may be called the final subject weights.

(5). Multiply the number of pupils a teacher has in every activity for which she is responsible by its subject weight, and by the number of periods per week. Call this the subject load.

(6). Add all the subject loads of each teacher to find the teaching load."(1)

From the foregoing information one will note that the instructional load is given consideration, with little regard for other duties that require the time of the teacher. One must recognize the fact that more than instructional load should be considered in order to find the total load of the teacher. Instructional load is an essential part of teaching load and should be ranked first in importance; however, the total load includes many other duties. Recognizing the scope of the problem of teacher load is essential in order to devise a measure which will be inclusive and accurate.

(1). John C. Almack and James F. Bursch. Administration of Consolidated and Village Schools, p. 88.

Teaching Load in North Central Schools

The North Central Association Quarterly gives worthwhile information on Standard VIII, "The Teaching Load". While the association has set up and recommended certain norms, it seems that the larger schools especially, have experienced a difficulty in meeting these demands.

The norms recommended by the association are as follows:

"(1). pupil-teacher ratio of twenty-five to one, (2) the number of classes taught daily by a single teacher as five, (3) the total number of pupil-periods per day, one hundred and fifty per teacher".(1)

From reports of the commission of Secondary Schools different studies have been analysed. "The more important

studies of teaching load have been made through the use of the following measures:

- (1). The size of classes taught.
- (2). The mode of presentation of the class exercise.
- (3). The number of preparations necessary per day.
- (4). The number of classes taught each day.
- (5). The number of pupils for each teacher.
- (6). The total number of clock-hours spent at all school work.

It is realized that this summary does not include all the measures which have been made in the investigations already made. Therefore, in addition, attention will be given to several measures which have been less frequently used than the six enumerated."(2)

"Four hundred ninety-eight, or nearly twenty-one percent of the schools now have a pupil-ratio in

(1). North Central Quarterly, Vol. XII, 1937-38, p. 106.

(2). North Central Association Quarterly, Vol. I, Clifford Woody and W. G. Bergeman, Univ. of Michigan, "Measurement and Equalization of the teaching load in High schools", 1926, N, pp. 350-359.

excess of twenty-five. This percentage has grown from year to year. The larger schools are experiencing the greatest difficulty in operating their schools with a normal pupil-teacher ratio. There are five hundred and ninety-nine teachers, or a little over one percent of all teachers, teaching more than six classes per day, more than fifteen percent of our teachers have over one hundred and sixty pupil recitations per day."(1)

"The size of the combinations of subjects assigned to teachers in small schools is significant because there is a large number of such schools in existence and many teachers are employed in them, and also because a very large proportion of inexperienced teachers begin teaching in such schools. Two studies in this report revealed that inexperienced teachers very rarely found their first positions in schools having more than ten teachers on the staff, and two other reports point out that unusually high proportions of beginning teachers were included on the faculties of schools of this size."(2)

Joseph D. Ellif of Columbia, Missouri, in his "Counter Attack on Secondary School Standards", says,

"At the present time the real measure is the total enrollment divided by the number of teachers. When the quotient is thirty or less the school meets the standard. The commission has tried many times to find a satisfactory measure of teacher load, and the present standard is the result. The best that can be said is that it works. Here is work for a committee that will require much research and experimentation."(3)

(1). North Central Association Quarterly, Vol. VII, 1932-33, p. 70.

(2). North Central Association Quarterly, Ed. F. Potthoff, "What Combinations of Subjects Constitute the teaching load of Secondary School Teachers", Vol. X, 1935-36, p. 238.

(3). North Central Association Quarterly, Vol. XI, 1936-37, pp. 374-375.

Purpose of Investigation

Success in a profession depends largely upon the conditions under which the individual must work. This is especially true with teaching; if one is attempting to accomplish too much, some of the things will be either poorly done or not done at all.

In the small high school the instructional load is heavy because of the required subjects which must be offered and the elective subjects which the school board want offered. The people of the community, of course, inform the board members and superintendent what they wish for their children. If the community has interest in one or two elective fields the instructional load due to elective subjects is not a serious burden; but should the desire for elective subjects vary considerably the instructional load increases rapidly.

In addition to actual classroom teaching there has recently been a desire for increasing the extra-curricular work in our schools. These have been accepted as both proper and necessary parts of the school program. Then too, there is the factor of community cooperation in which teachers are expected to furnish their leadership, assistance, and spirit.

In making a summation of all the factors involved in the teachers' working day it constitutes a busy week for the representative teachers in the schools of our state. The question of just how much load does the teacher carry, is an important one, and it offers a challenge to any one

interested. The author accepted this challenge and began a study in January 1937. Because no systematic investigation, so far as the author could find, has been made in South Dakota on information dealing with teacher load in the small high school, it seemed important to undertake such a study.

This study of the three, four and five teacher high schools, purports:

1. To reveal the teacher load of the superintendents in regard to executive and teaching duties, and to compare the load of the superintendents of the three, four and five teacher schools in regard to load resulting from the executive and teaching duties.
2. To reveal the professional training of the superintendents and teachers in the three groups of schools.
3. To determine the pupil-teacher ratio for class and study hall for each of the three groups of schools.
4. To reveal the mean and median class size for each of the three groups of schools.
5. To show the school day patterns of the superintendents and teachers and determine the teacher load resulting from the classroom and study hall duties for each of the three groups of schools.
6. To determine the teacher load due to extra-curricular activities for each of the three groups of schools.
7. To determine the teacher load due to miscellaneous school duties for each of the three groups of schools.
8. To determine the teacher load due to committee duties for each of the three groups of schools.
9. To determine the teacher load due to community duties for each of the three groups of schools.

10. To determine the mean total teacher load for each of the three groups of schools.

11. To compare the mean total teacher load of each three groups of schools, with each individual group

~~12.~~ To employ the Douglass Formula to a representative teacher from each of the three groups of schools.

13. To reveal the teachers' personal opinion of teacher load as expressed by themselves for each of the three groups of schools.

14. To offer recommendations, based upon this study, which may be used to aid superintendents and teachers.

Chapter II

Analysis of Studies on Teacher Load

In the past few years many teachers, and those interested in teaching, have attempted to analyze the problem and solve once and for all the condition of overloaded teachers in the secondary schools. The first phase of this problem is to devise a measure which will be satisfactory and accurate for this purpose.

Common Methods of Measuring Teacher Load

In general two methods of doing this have been used. One method is pupil-teacher ratio and the other method uses the Douglass Formula. Kenneth W. Eells discusses these two methods of teaching load as follows:

"Pupil-teacher ratio.

This method has two shortcomings, (a) makes no allowances for differences in length of class period, size of classes or for different degrees of responsibility for sponsorship of pupil activities, pupil guidance, study halls and other non teaching services. (b) Lack of provision for comparing teacher load of one teacher to another.

Douglass Formula.

Uses as a unit the amount of work required in the preparation for and teaching of one class of twenty pupils in a foreign language or in mathematics for one class period of forty-five minutes and converts the other activities into equivalent amounts of work."⁽¹⁾

The Douglass formula takes into account the number of class sections, number of pupils per section, and the number

(1). Kenneth W. Eells, Nations' Schools, Vol. XXIII, Feb. 1939, p. 49

of free periods during the day. It also accounts for the difference in length of the class periods together with the number of different preparations required, and the amount of time required for cooperations, as study halls and activities.

Taking these general factors into consideration, Douglass proceeded to build a formula, which would take into account most of these conditions and which was designed to be used in the junior and senior high schools. Following is the Douglass Formula for measuring teacher load.

$$*TL = (CP - \frac{2Dup}{10} + \frac{(NP - 20CP)}{100} + \frac{PC}{2}) (\frac{PL + 55}{100})$$

TL--Units of teaching load per week.

Dup--Number of hours spent per week in classroom teaching classes for which the preparation is very similar to that for some other section, not including the original section.

CP--Class periods spent in class room per week.

NP--Number of pupils in classes per week.

PC--Number of periods spent per week in supervision of the study hall, student activities, teachers' meetings, committee work, assisting in administrative or supervisory work, or other cooperation.

PL--Gross length in minutes of class periods.

Perhaps the formula may be best employed to measure only instructional load, omitting the factor relating to "cooperations"; that is, PC. In large city systems investigations may be made to advantage upon the data of which equivalents of performing extra-instructional duties (for example, coaching and extra-curricular organization in terms of teaching-load units) may be standardized.

These assumptions are not finely accurate or truly objective. They represent a compromise between the consensus of opinion of a number of groups of graduate students made up of experienced teachers and principals."(1)

(1). Harl R. Douglass, Organization and Administration of Secondary Schools, pp. 114-118.

The Douglass formula has been used in several states by research workers. Three of the neighboring states, namely, Iowa, Minnesota, and Montana have had studies carried out in their secondary schools and some interesting information has been revealed.

Review of Studies using Douglass Formula

From a study on "The Professional load of teachers in the Secondary Schools of Iowa" made by Ethel M. Saupe and Earl R. Douglass, the following points on teaching load were given.

"(1). Two hundred and eighty teachers of small schools teach on an average twenty-seven and six tenths class periods weekly.

(2). Two hundred and eighty teachers of small schools make on an average twenty-two and one tenth different subject preparations weekly.

(3). One hundred and eighteen teachers of small schools spend on an average five and one tenth periods per week in supervision of study halls, libraries, and home rooms.

(4). One hundred and thirty-four teachers of small schools report that they teach ninety-five pupils daily.

(5). Load determined by formula
Years of experience. without subject coefficient.

	average
1-3.	28.3
4-6.	27.9
7-9.	26.9
10 or more.	27.1

(6). No noteworthy differences between the teaching loads of men and the loads of women were found for any size group nor for the total sample.

(7). A significant condition is brought to light with regard to the relative loads of teachers of varying amounts of experience. While there are small differences and much overlapping between groups, a most questionable practice is indicated by the fact that teachers of lesser experience actually carry

greater loads than do their more experienced colleagues."(1)

Marlin Quanbeck and Harl R. Douglass carried out a similar study of teaching loads in the Minnesota high schools and used the Douglass formula to compute the teaching load. The findings were as follows:

- "(1) Smaller schools have heavier teaching loads;
- (2) teachers of foreign languages, industrial arts, home economics and physical education have lighter loads than do others; (3) teachers in accredited schools have greater loads than those in unaccredited;
- (4) beginning teachers have greater loads than experienced ones, and administrators carry loads sufficiently large to invite criticism."(2)

The Douglass formula was also used in a study of teacher load made by William Taylor and Harl R. Douglass in the Secondary Schools of the State of Montana. The study was made in 1933-34 with eighty-four schools sending in complete replies or a total of thirty-nine and four percent of the two hundred and thirteen schools selected.

Questionnaires were sent to superintendents and principals in the schools. The questionnaires were divided into two parts, one dealing with instructional load, and the other dealing with cooperational load. The results as given by

(1). Harl R. Douglass and Ethel Saupe, School Review, Vol. XLIII, June 1935, pp. 428-33.

(2). Marlin Quanbeck and Harl R. Douglass, Nations' Schools, Vol. V, Feb. 1935, pp. 37-38.

the study are similar to those of other states.

"The coefficient of correlation between the formula load units and number of class periods taught by 595 teachers is $r = .45$. Even less correlation was found between the number of pupils and formula units; the coefficient was $r = .16$, practically none."⁽¹⁾

In agreement with the findings of other states the smaller the school the greater the teaching load. In Montana, a state of small schools, the principals and superintendents are also teachers.

Reviews of Other Studies

In a study entitled "Teachers' Working Day" conducted by Stuart Dean with the teachers of Davis School, Newton, Massachusetts, Dean finds that of the two hundred seventy teachers studied, the typical working day approximates eight hours and that teachers spend between fifty-eight percent and forty-three percent of daily time in actual teaching.

Frank H. Pauly, director of research, Tulsa Public Schools, studying class size and teacher load states:

"Class size and teacher load studies are essential to the efficient and economical administration of any school system. Class size studies alone are not enough. The studies should give complete data as to the total teacher load. We must first have both summarized and detailed information as to

(1). William Taylor and Earl R. Douglass, Nations' Schools, Vol. XVIII, August 1936, p. 37.

actual class size and number of classes taught. When additional duties are assigned beyond this class teaching load, these duties must be isolated and studied."(1)

Pauly comments further by stating that a one page questionnaire giving the weekly program of each teacher was reasonably satisfactory; that an additional ten percent salary reduction was avoided by increasing class size; and that by making a careful study of total teacher load, however, on a membership basis, the senior high schools have nearly thirty-four pupils and the junior high schools have more than thirty-six pupils per class.

Werner A. Witte in a study of teaching loads in Wisconsin schools, compares ten schools and finds the following information:

"That men carry a heavier teaching load than do women; that the social science departments carry the heaviest loads; that the factors determining the teacher effort required in the various fields are not taken into consideration in assigning the number of students per teacher; and that there is no positive relationship between the teaching loads of individuals and the compensations received."(2)

M. L. Altstetter of Peabody College in a study "Do Extra Tasks Add an Extra Day to the Teacher Week" finds non-teaching factors so affect the teaching load that many teachers' work a sixty-hour week.

(1). Frank R. Pauly, Nations' Schools, Vol. XVI, October 1935, p. 20.

(2). Werner A. Witte, Bibliography of Research Studies in Education, 1935-36, U. S. Dep't. of the Interior, Office of Education, Bulletin, 1937, Number 6.

Altstetter states that two trends in educational practices have definitely influenced the daily task of classroom teachers. They are, namely; "the shifting of emphasis from assimilation of subject matter to pupil development and welfare, and the democratization of school administration".(1)

Further comments point out that effective guidance is largely individual and each teacher is expected to contribute any information that is significant in the case of problem pupils. Two hours per week is a conservative estimate of the time required for guidance conferences.

There are a number of factors or conditions that individually make little or no demand on the teachers time and yet may add to the load because of additional energy required or because of depressing and discouraging influences. Such of these factors may be; limited clerical help, supervision inadequate, equipment limited, living conditions unsatisfactory, customs different, and school spirit and organization such that discipline is a real task. No one teacher is confronted with all these factors but it is probable that several of them add to the load, and constitute a busy week of fifty or sixty hours. It must also be remembered that teaching is not mere manual labor but involves constant stimulation and enervation of delicate nervous tissues.

(1). M. L. Altstetter, Nations' Schools, Vol. XVI, December 1935, p. 35.

The analysis of these studies is offered to reveal to the reader, the wide range of factors, which must be taken into consideration in order actually and truly to show the real total teacher load. These factors must be organized in a clear and concise manner, so that one may truly interpret the different phases which enter into this complex problem. Traditional methods must be forgotten and a new approach developed in terms of the larger concepts of teaching. Only then will it be possible to determine what should constitute a valid teaching load.

Chapter III

Plan of Procedure

Teacher load is a problem having many phases. The teacher is called upon to furnish leadership for a variety of activities in addition to instructional work. These necessary activities require time of the teacher and a summation of that time, if it can be measured accurately, will give the total teacher load for that teacher. A method of collecting data upon which to base conclusions must be devised. First hand information from the teachers in the field would give the most satisfactory information regarding teacher load. This information could be secured by means of a questionnaire, sent to a sampling of small high schools in South Dakota; if that questionnaire were well developed, and in such a form that teachers would be willing to answer it. Therefore, the questionnaire method of securing information was selected.

Analysis of Questionnaire for Former Study

The questionnaire,* which was used in the former, or preliminary study of January 1937 was made up of four parts. The first part consisted of the teachers' schedule load, and what extra work that the noon hour required. In addition the number of classes and study halls per day with the number of students in each, together with free periods and the length of periods in minutes was called for.

*See Appendix.

The second part deals with the extra-curricular duties, that the teacher was engaged in. Also the question was asked, "Generally how much time do you spend per week on checking work and preparing for classes"?

In the third part of the questionnaire the community duties were asked for in order to reveal the extra time that teachers spend on such duties as church work, scout work, etc. Such duties, especially in smaller communities, require time and preparation of the teacher and should be considered as part of the load.

The final part of the first questionnaire was a single question asking how the teacher considered the teaching load. The teacher could select one of three words, (light, medium, heavy), to indicate the load as they judged it.

The questionnaires were sent to 44 small high schools, which were selected from the accredited list, and taken from the Educational Directory of South Dakota Schools for 1936-37. The selection was made by taking a fair sampling of teachers from the one teacher, two year accredited; the two teacher, three year accredited; and the three and four teacher, four year accredited high schools. The returns were satisfactory and revealed that teachers were willing to cooperate in a study of this kind, for 7 out of 10 one teacher; 7 out of 10 two teacher; 7 out of 12 three teacher; and 7 out of 12 four teacher schools replied.

A total of 65 teachers from 28 schools returned the questionnaires, giving information which they thought important so far as load was concerned.

Summary of Former Study of Teacher Load

The returns of the questionnaires were averaged, tabulated and compared as shown in Table I.

Table I. Comparison of Teacher load for the Former Study.

Load Items	1 Tchr. 2yr.H.S.	2 Tchr. 3yr.H.S.	3 Tchr. 4yr.H.S.	4 Tchr. 4yr.H.S.
Total Teachers	7	14	18	26
Regular school week-hours	30	30	30	30
Class preparation and checking work per week-hours	14.7	14.87	16.1	16.2
Extra-curricular duties per week hours	3.6	5.4	6.5	6.
Community duties per week-hours	2.	1.	1.5	1.
Class adviser time per week hours	1.	.75	1.	.75
Total hours per week	51.3	52.02	55.1	53.95

The average teacher in the one and two teacher high schools conducted class or study hall the entire day. The average teacher in the three and four teacher high schools had one free or laboratory period and taught one less class. Therefore, because the school day is traditionally 6 hours in length, a thirty hour week is the result.

There was a striking similarity in the time spent preparing for class and checking work.

Extra-curricular activities required much less time in the one teacher high schools as compared to the three other classifications of schools. This was probably due to the small number of students interested in the activities which this type of school attempts to sponsor.

Some other findings of the former study are as follows: the average number of students in class and study hall per teacher per day was 78, 66, 75, and 85 for the one, two, three and four teacher schools respectively; the average number of students in study hall per teacher per day was 36, 38, 38, and 42 for the one, two, three, and four teacher high schools respectively. In answer to the question regarding their personal opinion of their teaching load 4 teachers reported light, 31 teachers reported medium, and 28 teachers reported heavy.

The average appraisal of teacher loads as found by the former study revealed an average mean load of 53.5 hours per week per teacher, which if compared to the results of this study of teacher load in the three, four and five teacher schools is 15 percent less hours. This difference in lower mean total load can be accounted for by the fact that the questionnaire of the former study was not inclusive enough in content.

The significant points of difference of the two questionnaires are that the questionnaire for this study contained an expanded miscellaneous school duties section, a detailed extra-curricular activity section and in addition a committee and community duty section. (For comparison of the questionnaires of the two studies, see appendix)

The purpose of presenting a summary of the former study is to give the reader an idea of the teacher load in the one teacher, two year, and two teacher, three year accredited high schools, which are not included in this study. The table

represents fairly well the average teacher load in these schools.

The results of the former study revealed that the teachers were interested in their problem of teacher load; that they were willing to give information concerning their load; and that they would cooperate to the fullest extent in a study of this kind. The problem at hand was to revise the questionnaire to enable the teachers to give more accurate, more comparable and more complete information by which to measure teacher load.

Technique of the Analysis and Development of the Questionnaire

Realizing that the questionnaire of the former study had its limitations and shortcomings, it was decided to make a more accurate and complete questionnaire for this study of teacher load in the small high schools of South Dakota. Suggested methods of attacking the problem were analyzed and studied, and reviews of other studies on teacher load were made. In some cases the writers of articles pertaining to the subject would state what they believed should be considered as part of the load items.

All this information was compiled, segregated and reorganized for the purpose of developing a questionnaire which would without a doubt bring to the attention of the author the problem of teacher load in all its general aspects.

The questionnaire revised, contained all of the parts of the questionnaire that was used in the former study. In addition, it contained sections dealing with miscellaneous school duties, committee duties, administrative and supervisory

duties, and a detailed extra-curricular activity section. The basic headings were placed as nearly as possible in the order of their importance, and they were the topic statements upon which the sections were developed. The sections, in turn, were made up of questions which were stated in a very definite manner being clear, concise and inclusive in their content.

The questionnaire* used in this study consists of eight parts in the main, which were for all teachers, and an additional set of questions placed just preceding this first part to give the superintendent or principal an opportunity to record the load from their point of view. The seven questions which made up this part were direct and clear, and planned for the purpose of revealing information from the standpoint of administrators or supervisors. This, in turn would account for the lighter instructional load due to this type of position.

Part I. Teaching Schedule.

In this outline form, teachers were asked to record time of periods, classes that they met and the number of pupils in each class; study halls that they supervised, number of pupils present, and free periods. This outline gave a clear account of what the teacher did between nine o'clock A.M. and four o'clock P.M., the regular school day.

Part II. Extra-curricular duties.

In this section teachers were asked to record the hours spent per week on the various and most common extra-curricular duties. The guiding questions were broken up into parts to enable the teacher to list specifically his part in the program.

Part III. Miscellaneous School Duties.

Under this heading the questions were asked concerning the time spent on duties or other work that requires the time of the teacher, but which can not be classified with any particular group of activities other than those which are promiscuous. There was a wide range of topics under this heading which are needed to fully understand all the things which make up teacher load.

Part IV. Committee Duties.

In this part all the possible committees were listed in order of their importance. The teachers were asked if they served on any of the mentioned committees, to give the capacity in which they served, and to give the time required per week.

Part V. Community Duties.

This part was planned to reveal the community duties in which teachers were engaged, the capacity in which they served, and the time required to perform this type of duty. The questions were stated simply and directly for the purpose of clarity. This section was as interesting one, because very little consideration has been given to this type or phase of teacher load.

Part VI. General Information.

This section reveals general information and facts which are needed to more clearly understand each teacher in regard to professional training, subject qualifications teaching in, and general preparation for the work that is being done.

Part VII. Opinion of Teaching Load.

This consists of a single question as stated: "How do you consider your load: light, medium, or heavy"? The question was so placed that the teacher may have thought out the answer while answering the questionnaire. This answer called for the teacher's own opinion and judgment of the matter.

Part VIII. Remarks.

The teacher was to list any information believed to be important concerning teaching load. Personal comments should reveal any other type of load not covered by the questionnaire together with valuable suggestions.

Letter of Transmittal.

A letter of transmittal headed each of the questionnaires explaining why the material was being collected and instructions for answering them. Teachers were informed that no publicity would be given to any reports. A personal letter* was written to the superintendent of each school selected asking his co-operation in distributing, collecting, and returning the questionnaires in the self-addressed stamped envelopes, within a reasonable specified time. A word of appreciation was also spoken.

Selection of Schools

The revised questionnaire* was considered an improvement over the first one, and despite the fact that it was lengthy and complete, the returns were well over fifty percent and answered quite satisfactorily. The schools to which the

*See Appendix.

questionnaires were sent were selected from the Educational Directory of South Dakota Schools 1937-38, and were a true sampling of the three, four, and five teacher groups under the four year accredited classification. They were selected to represent fairly well the different sections of the state.

Table II. Number of Schools Selected and Questionnaires returned.

Kinds of 4Yr.H.S.	No. of Schools In State	No. of Schools Selected	Percent Selected	Tchrs. Question-Represented	Questionnaire Returns	Percent Returns
3 Tchrs.	96	15	15.6	45	24	53
4 Tchrs.	63	40	63.6	160	92	60
5 Tchrs.	41	15	36.5	75	29	40
Total	200	70	35	280	145	55

As evidenced by Table II the returns of the questionnaires were satisfactory and they were complete in most of the cases. The questionnaires circulated at a time when the teachers were able to go back over the years' work and analyze their duties well. This made the answers much more accurate and gave the new teacher an opportunity to judge the work of the year instead of asking the experienced teacher for an opinion. It also eliminated the estimation of what the years' work was going to be and revealed what it actually was.

The questionnaires were dated April 23, 1938, and mailed the following day. Teachers were asked to fill out the questionnaires and return them by May 5, 1938, which the majority of the teachers did. This stimulated the teacher who was going to answer to do so at once, and gave no reason for the teacher to lay it aside and forget about it.

Method of Presenting the Findings

In presenting the findings of this study the section dealing with the duties of the superintendents were first to be considered. The data from the questionnaires were analyzed and tabulated in order to compare the administrative, supervisory and general school duties of the superintendents.

The findings for the separate classifications of school systems, as three teacher, four teacher, and five teacher four year accredited high schools, were next considered. After they had been discussed individually they were compared with respect to the important load items, and final comments made concerning the important points pertaining to teacher load.

In general, the findings are mean results, which have been put into table form. The tables show the superintendents and teachers in separate columns and finally in a combined column, which has been weighted to give an accurate accounting of the total teacher time.

The weighting for any single duty was made as follows: Multiply the average time required by superintendents to perform the duty by the number of superintendents that have that duty by the number of superintendents that have that duty to perform. Divide the sum of these products by the combined total number of superintendents and teachers that have the duty to perform. The result is the weighted average time, that is required of the teacher, who is assigned the duty.

The superintendents in these schools are considered with the teachers in the weighted column for the reason that in

most instances the major part of their work is actual class teaching. By weighting the results an accurate result is obtained for all load items.

In some cases information of exceptional character was found. This type of information was given where it would add to or further explain some phase of teaching load.

The tabular information was arranged according to the frequency of the superintendents. In most cases the degree of importance was shown by arranging the material of the tables in this manner, however, the importance of the material in some cases varies greatly, but for the sake of continuity the arrangement was based on superintendent frequency so far as possible.

Chapter IV

School Executives' Duties Compared

The superintendents' weekly time is divided among the administrative, supervisory, general school duties together with teaching duties. The purpose of this chapter is to show a comparison of the total time spent per week by the superintendents in the three groups of schools for the above mentioned duties.

The superintendents, being the administrators of school systems, are responsible in a general way for the efficient operation of the school system. It is the superintendent's duty to keep records, make reports, make recommendations, as well as to help with or carry his share of the teaching duties. It is to be expected that his actual teaching duties would require less time than is required of the other teachers on his staff, however, the total time spent on his administrative and supervisory duties together with his teaching and other general school duties would be comparable to the teachers' time spent.

In order to reveal the teacher load of the superintendents in regard to the time spent on administrative duties, supervisory duties, general school duties and teaching duties, a separate section was put at the beginning of the questionnaire*. This section was intended primarily for the purpose of enabling the superintendents to show the time which they

* See Appendix.

spent for administrative duties, supervisory duties, teaching duties, visiting classrooms, aiding and consulting teachers, aiding and consulting pupils and other general school duties. The mean time was found for the separate items and the weighted mean was found for the combined group of schools; namely, the three, four and five teacher schools. This information is given in Table III.

Table III. Percent of Time and Mean Hours That Superintendents spend on Executive and Teaching Duties.

General School Duties	3 Tchr.H.S. Sup'ts. M hrs./wk.	4Tchr. H.S. Sup'ts. M hrs./wk.	5 Tchr.H.S. Sup'ts. M hrs./wk.	Total M Wtd. hrs/wk.	Percent of Total
Total No. Sup'ts.	8	26	6	40	
Teaching Duties	20.0	18.7	15.0	18.4	42.4
Admin. Duties	7.3	9.2	7.2	8.5	19.6
Super- visory Duties	3.7	4.4	4.4	4.3	10.0
Aid and Consult Pupils	2.4	4.3	3.2	3.7	8.5
Aid and Consult Teacher	2.3	3.1	2.2	2.8	6.4
Visit Class-rooms	1.8	2.5	2.8	2.4	5.5
Other General Duties	4.8	2.7	4.2	3.3	7.6
Total	42.3	44.9	39.0	43.4	100.0

Table III shows a comparison and final weighted value in hours of the time that superintendents of each school group spend on the single tasks. It would seem from a cursory glance at the table that the mean total load for each group of superintendents is low. This, however, is accounted for by

the fact that the time spent on extra-curricular activities, community duties, committee duties and a portion of the miscellaneous school duties is not included in the total amounts.

The time spent for teaching of the three groups of school superintendents shows a definite decrease in the time from 20 hours per week for the superintendents of the three teacher schools to 15 hours per week for the superintendents of the five teacher schools. The four teacher school superintendents' time spent for teaching is .3 of an hour above the mean total weighted time of 18.4 hours per week.

The time spent for administrative duties lacked but .1 of an hour of being identical for the superintendents of the three and five teacher schools, being 7.3 and 7.2 respectively. The four teacher school superintendents reported an average of 9.2 hours per week for administrative duties.

The time spent for supervisory duties of the superintendents was identical for the four and five teacher schools, being 4.4 hours per week. The three teacher school superintendents reported an average of 3.7 hours per week.

The time spent for aiding and consulting students was more for the four teacher school superintendents, being 4.3 hours in comparison to 2.4 and 3.2 hours for the three and five teacher schools respectively.

The time spent for aiding and consulting teachers is 2.3, 3.1 and 2.2 for the three, four and five teacher schools respectively.

Visiting class requires 1.8, 2.5 and 2.8 hours per week respectively for the three, four and five teacher schools.

Figure 1 illustrates graphically how the superintendents spend their time on executive and teaching duties.

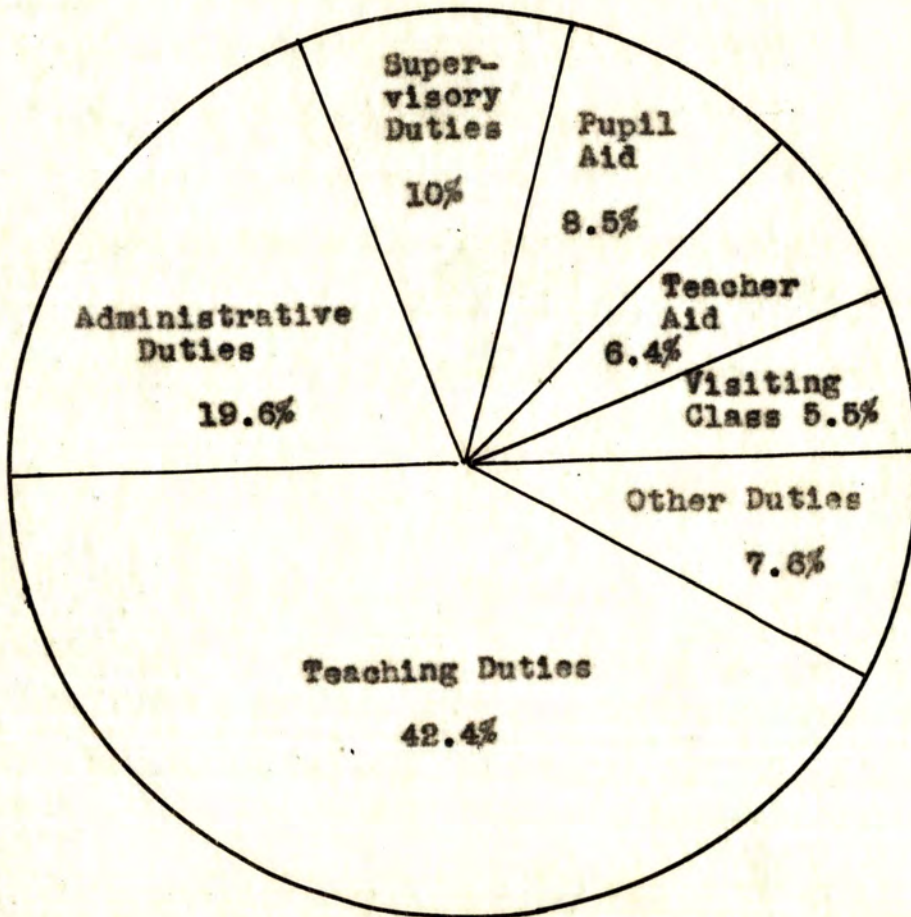


Figure 1. How Superintendents spend 43.4 hours of their week.

Figure 1 shows how the superintendents spend their time so far as executive and teaching duties are concerned. This does not include the full week of the superintendent. The time spent on community duties, committee duties, extra-curricular activities and a portion of the miscellaneous duties are not included.

It is evident from Figure 1 that the superintendents in these schools spend a large portion of their time in actual classroom teaching. On the average they spend 42.4% of the 43 hours per week teaching, which is more than twice the time spent on administrative duties and four times the time spent on supervisory duties.

Visiting classrooms requires approximately one half as much time as supervisory duties, being 5.5% and 10% respectively. Pupil aid and consultation requires 3.5% of the time as compared to teacher aid and consultation, which requires 6.4% of the time. Other duties require 7.6% of the time.

Chapter V

Teacher Load as Found in Three Teacher Four Year Accredited High Schools

This chapter deals primarily with the tabulations and conclusions drawn from the questionnaires, which were received from 53 percent of the selected group of three teacher high schools. These high schools are conducted by the minimum number of certified teachers that may operate four year accredited high schools in the state of South Dakota. Under Standards of Accrediting, regulation XI, General Policies, Regulations and Recommendations, (d), "No new four year high school will be accredited which employs less than three full time teachers including the superintendent." (1)

The findings, which were collected from the questionnaires that were returned by the teachers of the three teacher high schools, are in consecutive order as follows: Part I. The General Conditions Affecting Teacher Load, (1). Professional Training, (2). Pupil-teacher Ratio, (3). Days on Duty Other than Regular Term. Part II. Items Directly Influencing Teacher Load, (1). Classroom and Study Hall Duties, (2). Extra-curricular activities, (3). Miscellaneous School Duties, (4). Committee Duties, (5). Community Duties. Part III. Evaluation of Teacher Load for Three Teacher Schools. (1). Summation

(1). J. F. Hines, Bulletin No. 16, Approved Programs of Studies for Three, Four and Five Teacher Secondary Schools of South Dakota, pp. 15-16.

of Load Items, (2). Douglass Formula Applied, (3). Teachers' Personal Opinion of Load.

Part I

General Conditions affecting Teaching Load

In general, there are some conditions which affect the teaching load that cannot be measured in clock hours but contribute indirectly. The questionnaire contained a group of questions pertaining to these conditions, and the information from these questions is tabulated and discussed.

Professional Training

The following information was collected from the questionnaires in regard to the training of teachers in this group. The superintendents of these schools were all graduates of four year colleges and held either B.S. or B.A. degrees. In no case did a superintendent state that he held a Master of Science degree, however, one teacher holds such a degree. The degrees held according to sex in the three teacher schools are shown in Table IV.

Table IV. College Degrees held by Superintendents and Teachers.

College Degree	Male		Female	
	Sup't. Freq.	Tchr. Freq.	Tchr. Freq.	Total Freq.
Total	8	5	11	24
B.A.	4	3	5*	12
B.S.	4	2	6	12

* Indicates 1 teacher has M.A. degree besides her bachelors degree.

The teaching positions are divided quite evenly between the men and women, however, in all cases the position of superintendency was filled by a man in this classification of schools.

From section I, The Teaching Schedule, of the questionnaires one is able to determine the number of subject matter fields in which superintendents and teachers teach. Table V shows the number of subject matter fields and the frequency of the superintendents and teachers.

Table V. Number of Fields in Which Superintendents and Teachers Teach.

No. of Teaching Fields	Sup't. Freq.	Techr. Freq.	Sup't. Techr. Freq.	Total Av. Wtd.
Total	8	16	24	
1	0	2	2	2
2	4	3	7	14
3	1	8	9	27
4	3	2	5	20
5	0	1	1	5
	Total		24	68

$$\text{Mean} = 68 \div 24 = 2.83$$

As seen in Table V the largest number of the superintendents and teachers are teaching in three subject matter fields. All but 3 were teaching in 2, 3 or 4 fields.

From section VI, General Information, of the questionnaires one is able to determine the subject matter fields in which the superintendents and teachers are prepared. By inspection of section I, one is able to determine the field in which the

teacher is teaching. Some teachers were teaching outside their major and minor fields of preparation, however, the teacher may have had some training in the subjects taught. This condition could not be determined from the information given in section VI, because only major and minor subject matter fields were asked for and teachers did not give a complete transcript of their work. It is generally agreed that teacher load is greater for teachers who are not adequately trained or who are teaching in fields in which they have not had sufficient preparation. In Table VI the word "within" refers to teachers who had a major or minor in the field of the subject taught. The word "without" refers to teachers who did not have a major or minor in the field of the subject taught.

Table VI shows the subject matter fields that teachers are prepared to teach in and subject matter fields that teachers are not prepared to teach in. For Method of Weighting see Chapter III, page 30.

Table VI. Frequency of Subject Matter Fields that Teachers are Prepared for and Subject Matter Fields that Teachers are not Prepared for.

Subj. Matter Field		Sup't. Tchr.		Sup't. Tchr.	Total Weighted	
Preparation		Freq.	Freq.	Freq.	Preparation	
Within	Without				Within	Without
Total		8	15	23		
3	2	0	1	1	3	2
3	1	2	1	3	9	3
3	0	0	2	2	6	0
2	2	1	1	2	4	4
2	1	0	5	5	10	5
2	0	1	1	2	4	0
1	2	1	0	1	1	2
1	1	3	2	5	5	5
1	0	0	2	2	2	0
				<hr/>	<hr/>	<hr/>
Total				23	44	21

Mean = $44 \div 23 = 1.91$ number of subject matter fields teachers teach in with preparation.

Mean = $21 \div 23 = .91$ number of subject matter fields teachers teach in without preparation.

A significant point was that only 1 teacher out of 24 taught in five subject matter fields, and only 2 teachers out of 24 taught in but one field. The majority of the teachers taught in 2, 3 or 4 subject matter fields.

As evidenced by Table VI, teachers taught in approximately two subject matter fields for which they were prepared, and approximately one subject matter field in which they were not prepared for. In other words two thirds of the teaching was done in subject matter fields in which teachers had a major or minor, and one third of the teaching was done without a

major or minor field. The ratio was 2 to 1. Teachers may have had training in subjects taught.

Pupil-Teacher Ratio

The ratio of pupils per teacher in the three teacher high school was found by dividing the total high school enrollment by the number of teachers in the school system. The maximum ratio was found by dividing the largest school enrollment by three. The resulting ratio was 24 to 1. The minimum ratio was found by dividing the smallest school enrollment by three. The resulting ratio was 11 to 1. The average ratio was found by adding school enrollment of all three teacher schools in this study and dividing by the number of teachers in the schools. The resulting average ratio was 15 to 1.

From the questionnaire returns the average, the maximum average, and the minimum average number of students in class and study hall, per teacher was determined. The average was found by averaging the average number of pupils that each teacher had in class and study hall per day; the maximum average was found by averaging the largest class and study hall that each teacher had to conduct during the day; and the minimum average was found by averaging the smallest class and study hall that each teacher had to conduct during the day.

Table VII shows the number of pupils in class and study hall per day and per week. The average maximum number in class per day was found by adding together the largest class of each superintendent and teacher and by dividing by the

total number of superintendents and teachers. The average minimum number in class per day was found by adding together the smallest class of each superintendent and teacher and by dividing by the total number of superintendents and teachers. The average number in class per day was found by averaging together the average number of pupils each superintendent and teacher had in class per day. These are converted into number per week by multiplying by five.

The average for superintendents and teachers was weighted and the results given for the combined groups. The method of weighting is explained in Chapter III, page 30.

Table VII. Number of Pupils in class and study hall per Teacher.

	Superintendents			Teachers			Sup't.
	Av.	Av. Max.	Av. Min.	Av.	Av. Max.	Av. Min.	Tchr. Av. Wtd.
Total	8			16			24
Number Pupils in class							
Per day	55.4	74.0	27.0	73.4	121.0	47.0	67.4
Per week	277.0	370.0	135.0	367.2	605.0	235.0	337.1
Number Pupils in Study Hall							
Per day	45.4	81.0	23.0	40.0	92.0	12.0	41.8
Per week	227.0	405.0	115.0	200.0	460.0	60.0	209.0

One will note from Table VII that teachers taught more pupils per day and had larger numbers in the classes that they taught than did the superintendents in the same schools compared to superintendents and that superintendents on the average supervised somewhat larger study halls. The average number

of students per teacher per day was 67.4, which is 55 percent below the maximum of 150 pupils per teacher per day or which is 44 percent below 120 pupils per teacher per day. The State Department of Education recommends that the total number of pupils per teacher per day be no more than 120, and that 150 pupils per teacher per day be the maximum load.

Class Size.

Class size is a definite factor of teacher load. While it is impossible to measure this in hours the author feels that when teachers reported time for class preparation and time spent for checking work that the teacher load due to variation in size of class was thereby taken into account.

The data from the questionnaires show that there was a wide variation in the class size. The distribution is shown in Table VIII.

Table VIII. Frequency of Class Size.

Pupils Per Class	Sup't. Class Freq.	Tchr. Class Freq.	Total Class Freq.	Total Av. Wtd.
1-5	1	6	7	21
6-10	12	32	44	352
11-15	9	23	32	426
16-20	8	21	29	522
21-25	3	7	10	230
26-30	1	1	2	56
31-35	0	0	0	0
36-40	0	1	1	38
Total			125	1645

Mean = 13.16 pupils.

Median = 12.5 pupils.

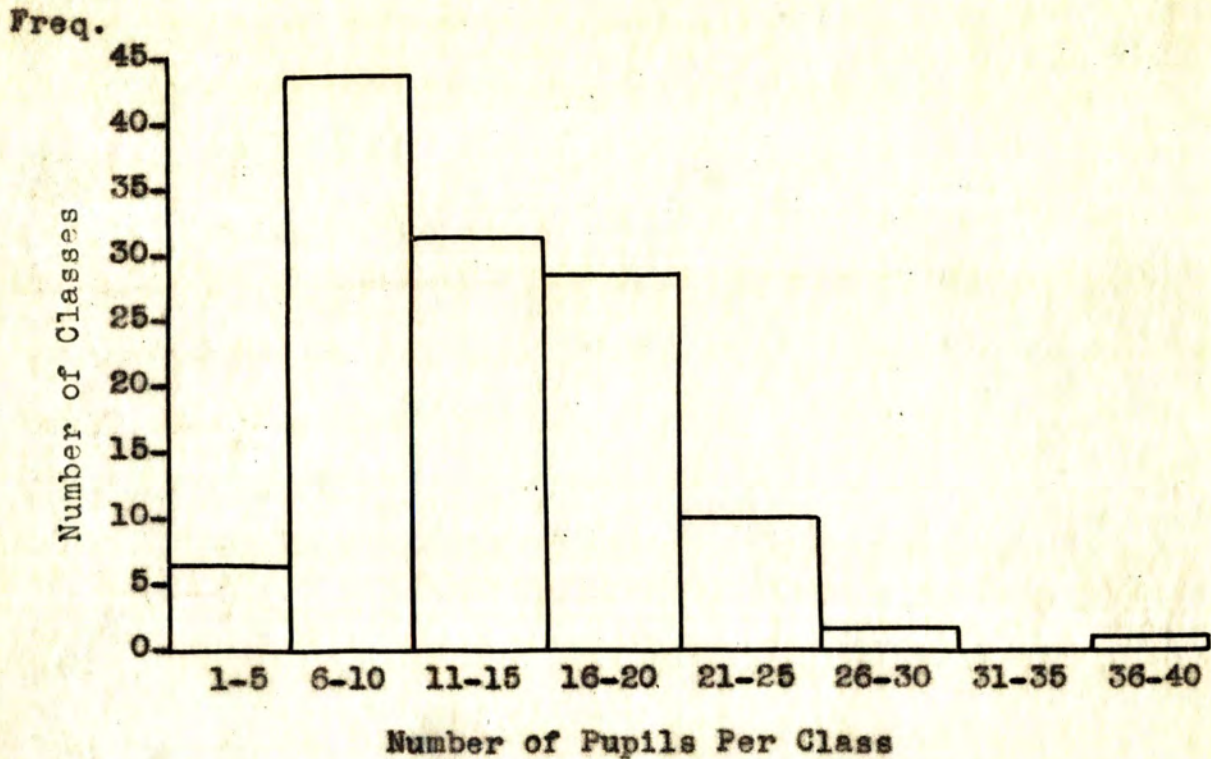


Figure 2. Distribution of Number of Pupils Per Class With Number of Classes.

As Table VIII shows there were 3 classes with more than 25 pupils per class and only 7 classes with 5 or less students per class. The greatest number of classes had from 6-10 pupils per class. Eighty-two percent of the classes had from 6 to 20 pupils per class as shown by the frequency of the three groups included in this range.

The data from the questionnaires show that the largest single class was 38 students, and the smallest single class was 2 students. In this case the class of 2 students was in Latin II, which was offered as an elective subject.

Days on Duty Other than Regular School Term

Superintendents and teachers have to spend some time in the fall before school opens in order to organize the school year program. Likewise, they remain after school closes in

the spring for the purpose of making final records and checking equipment. This work adds to the yearly load and is given here only for its general value.

The superintendents reported on an average of 16 days before school opens in the fall, while the teachers reported on an average of only 1 day before school opens. Superintendents also remain on duty after school closes in the spring more days than do the teachers; the average as shown by the data collected was 5 days for the superintendents and 1 day for the teachers.

Agriculture teachers, due to project work are exceptions. The agriculture teacher who was in this group of teachers was not considered in the average time of reporting in the fall or in the time of remaining on duty after school closes in the spring, for agriculture teachers are hired on a longer contract, either ten or twelve months. This teacher reports 30 days early in the fall and remains on duty 44 days after school closes in the spring.

Part II

Items Directly Influencing Teacher Load

The following information deals primarily with data taken from the questionnaires to determine the clock hours of teacher load, for the three teacher schools.

Classroom and Study Hall Duties

The regular school day of the teachers and superintendents did not vary a great deal in the three teacher high school.

Because the superintendents on an average spent approximately $5/6$ of their time teaching class and supervising study hall, their school day patterns were included with the patterns of the teachers. This arrangement also serves for the purpose of comparing the patterns of the superintendents with those of the teachers.

The returns of the questionnaires revealed that the school day for three teacher schools was either divided into 8 or 6 periods. Table IX shows that the most common way of dividing the day is into 8 periods. Teachers were asked to report classes taught, study halls supervised and free periods from which a group of patterns were found. The frequency of each pattern is also shown.

Table IX. Frequency of Patterns-Total Periods and Hours per day.

Pattern of School Day			Sup't. Tehr.		Sup't. Tehr.	Total periods	Total hours
Class	St.H.	Free	Freq.	Freq.	Freq.	a X f plus b X f	per day Av. Wtd.
Total			8	16	24		
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
8 period day							<u>g X .75</u>
7	1	0	0	2	2	16	12.
7	0	1	0	2	2	14	10.5
6	2	0	1	6	7	56	42.
5	3	0	0	2	2	16	12.
5	2	1	2	0	2	14	10.5
4	3	1	1	0	1	7	5.3
4	2	2	2	0	2	12	9.
6 period day							<u>g X 1</u>
6	0	0	0	1	1	6	6
5	1	0	0	1	1	6	6
5	0	1	0	1	1	5	5
4	2	0	0	1	1	6	6
4	1	1	1	0	1	5	5
4	0	2	1	0	1	4	4
			Total		24		133.3

Mean = $133.3 \div 24 = 5.6$ hours per day or 28 hours per week per teacher.

Some of the significant points which are revealed by Table IX, are that the eight period day was the most common in this classification of school; 1 superintendent and 13

teachers taught class or supervised study hall the entire day; only three teachers reported that they had one free period; and in general the superintendents taught fewer classes and had more free periods than did the teachers. It was surprising to find that 1 superintendent and 13 teachers were on duty the entire day. However, it is possible as shown by Table IX, to arrange a schedule that will give the teacher at least one free period.

In order to calculate the teacher load due to the regular work during the school day the time that a teacher was on duty was taken into consideration because clock hours was the final measure desired.

Teacher load resulting from classroom and study hall duties was derived from the mean time required of the teacher in conducting class and supervising study hall. The teachers of the three teacher high schools spent a mean time of 28 hours per week per teacher. The total mean load in hours per week per teacher for this group was 60 hours as shown on page 60. Therefore, 28 hours per week per teacher, the time required for classroom and study hall duties, is equal to 46.67 percent of the total weekly teacher load. Thus over 50 percent of the teachers' time per week is absorbed in other school duties, a fact often unappreciated by the public or even sometimes by board members and school administrators.

Extra-Curricular Activities

Extra-curricular activities are in all school systems accepted as essential and part of the program. Teachers are

expected to be capable of carrying out a part of this program, and it is found that quite often they are judged by their success in conducting these activities.

Teacher load varies with the number of activities in which teachers are engaged. It is evident that in schools of this type the teachers will have the responsibility of more than one duty in most instances as Table X reveals.

Table X. Number of Extra-curricular Activities per Superintendent and Teacher.

No. of Activ.	Sup't. Freq.	Techr. Freq.	Sup't. Techr. Freq.
Total	8	16	24
1	1	3	4
2	4	5	9
3	2	4	6
4	1	2	3
5	0	2	2

From Table X one notes that no superintendent had as many as 5 activities for which he was responsible whereas 2 teachers have 5. The activities in which these two teachers were engaged were similar to the first four; namely, class adviser, coach dramatics, direct music, and play production. The fifth duty for one of the teachers was a personality club and for the other the school paper.

The blanks furnished in the questionnaires called for the extra-curricular activities sponsored by each superintendent and teacher, and the time required per week in carrying out the activities. Table XI, gives the classification and time

spent for each activity of the combined groups of superintendents and teachers. See Chapter III page 30 for method of weighting.

Table XI. Frequency and Time Consumption of Extra-curricular Activities.

Extra-curricular Activ.	Sup't. Hrs. per		Tchr. Hrs. per		Sup't. Hrs. per		Total
	Freq.	wk. Av.	Freq.	wk. Av.	Freq.	Av. Wtd. Av.	
Total	8		16		24		
Class Adviser	8	0.5	11	1.7	19	1.2	22.8
Coach Athletics	7	3.7	2	2.3	9	3.4	30.6
Direct Music	2	4.0	7	3.3	9	3.5	31.5
Play Production	2	1.	9	5.1	11	4.4	48.4
Direct Dramatics	1	1.	7	3.6	8	3.3	26.4
Other Ex-Curricular Activ.	0	0	7	2.0	7	2.0	14.0
			Total		63		173.7

Mean = $173.7 \div 63 = 2.8$ hours per week.

Mean = $63 \div 24 = 2.6$ activities per teacher.

Therefore $2.8 \times 2.6 = 7.28$ hours per week per teacher.

In every case the superintendent was class adviser but only 11 out of 16 teachers acted in this capacity. Seven of the 8 superintendents coached athletics. Play production required the most time and more teachers were engaged in this activity than any other, with the exception of being class adviser. Other extra-curricular duties included a school paper, work in the school library and a personality club which only one teacher conducted.

Teacher load resulting from extra-curricular activities was derived from the mean time required of a teacher in supervising the activities. The teachers of the three teacher high schools spend a mean time of 7.28 hours per week per teacher. The total mean load per week per teacher was 60 hours as shown on page 60. Therefore, 7.28 hours per week per teacher, the time required for supervising activities is equal to 12.1 percent of the total weekly teacher load.

Miscellaneous School Duties

There are some duties which can not be classed with any particular group of duties unless that classification is very broad. This creates a need for a miscellaneous grouping of some of the school duties, which are necessary if the teacher is to do good work. The most essential thing that a teacher must do is to prepare for daily classes. The next important thing is checking the work of the students, which requires careful reading of the material to be corrected. The teacher must try to interpret the answer as offered by the student, and make suggestions for improvement. Table XII reveals the character of the miscellaneous school duties that the teachers have to do and the time spent per week on the duties. For the method of weighting see chapter III, page 30.

Table XII. Miscellaneous School Duties-Frequency and Time Consumption.

Miscellaneous School Duties	Sup't. Freq.	Hrs. per wk. Av.	Tchr. Freq.	Hrs. per wk. Av.	Sup't. Hours Tchr. Per wk. Freq. Av. Wtd.	Total Av. Wtd.
Total	8		16		24	
Preparing for class	8	5.3	16	12.0	24	9.8 235.2
Checking class work	8	5.0	16	7.8	24	6.9 165.6
Sch. work before nine	8	.4	16	.4	24	.4 9.6
Sch. work after four	8	.4	16	.4	24	.4 9.6
Sch. work after six	5	2.9	8	5.3	13	4.4 57.2
Sch. work on Saturday	5	1.5	9	3.1	14	2.5 35.
Sch. work noon hour	5	1.3	8	1.6	13	1.5 19.5
Teacher meeting	4	.55	5	.7	9	.6 5.4
Time for slow student	3	1.2	4	1.6	7	1.5 10.5
Time for superior student	2	.8	0	0	2	.8 1.6
			Total		154	549.2

Mean = $549.2 \div 154 = 3.6$ hours per duty per week.

Mean = $154 \div 24 = 6.4$ duties per teacher.

Therefore $3.6 \times 6.4 = 23$ hours per teacher per week.

All the teachers and superintendents as shown by Table XII page 52 spend some time preparing for class, checking class work, arrive before 9 o'clock A. M. and remain on duty approximately the same amount of time after 4 o'clock P. M. Approximately one half of the superintendents and teachers work on Saturday, after 6 o'clock P. M. and during the noon hour. There is little specified time given to teacher meetings as evidenced by information from questionnaires.

From the data collected by the questionnaires there was a single case of one teacher who spent twenty hours per week in preparation for daily class work, while another single case spent only 2 hours per week. In checking work the data showed that 1 teacher spent 20 hours per week as compared with another one who spent but 2 hours per week. The fact that a teacher may report low in preparation does not mean the work is not being well done. It may mean that the teacher was teaching a class in typing and does not have to spend long hours in preparation. That teacher would spend more time checking work. The teacher of English usually reported near the average time for preparation and for checking work.

Teacher load resulting from Miscellaneous school duties was derived from the mean time required of a teacher in doing the duties. The teachers of the three teacher schools spend a mean time of 23 hours per week per teacher. The total mean load per week per teacher is 60 hours as shown on page 60. Therefore, 23 hours per week per teacher, the time required for doing miscellaneous school duties is equal to 38.33 percent of the total teacher load.

Committee Duties

There are many functions or activities in a school system that can be handled more efficiently and satisfactorily if done by a committee. Data from the questionnaires reveal that there are various committees of this sort.

Table XIII lists the committees and shows the time required by the superintendents and teachers for serving on the committees.

Table XIII. Committee Duties-Frequency and Time consumption.

Committee Duties	Sup't. Hrs. per		Tchr. Hrs. per		Sup't. Hours		Total
	Freq.	wk. Av.	Freq.	wk. Av.	Freq.	per wk. Av. Wtd. Av.	
Total	8		16		24		
Pupil Control	1	1.0	3	1.2	4	1.1	4.4
Program Studies	1	1.0	1	1.0	2	1.0	2.0
Athletic	1	2.0	0	0	1	2.0	2.0
Enrollment	1	1.0	0	0	1	1.0	1.0
Examination	1	1.0	0	0	1	1.0	1.0
School Supplies	1	1.0	0	0	1	1.0	1.0
School Function	0	0	1	0.5	1	0.5	0.5
Any Other	0	0	0	0	0	0	0
			Total		11		11.9

Mean = $11.9 \div 11 = 1.1$ hours per week per duty.

Mean = $11 \div 24 = .5$ duties per teacher.

Therefore, $1.1 \times .5 = .55$ hours per week per teacher.

The committee work does not seem to be assigned to any particular teacher in three teacher high schools. It appears that the work was done by the faculty as a group, because it was found on the questionnaires that superintendents and teachers would remark thusly; "We serve on all of these in

one capacity."

In general school functions are usually one of the duties that require much time of the teacher. The fact that it is shown in Table XIII as one of the committees that requires the least amount of time is probably due to the condition that the teachers have counted the time under the class adviser duties and considered the function as a class function. The class functions are sometimes all the school functions that are held in these high schools.

Teacher load resulting from committee duties is derived from the mean time required of a teacher in doing that duty. The teachers of the three teacher high schools spend a mean time of .55 hours per week per teacher. The total mean load per week per teacher is 60 hours as shown on page 60. Therefore, .55 hours per week per teacher, the time required for committee duties is equal to 1 percent of the total weekly load.

Community Duties

In many cases teachers are employed in a school system with the understanding that they are to assist with or direct a community activity; therefore, community duties must be kept in mind when figuring teaching load. Data from the questionnaires revealed that a few of these organizations are related to the school work, such as Parent Teacher Associations; however, the majority of them are entirely independent of the school. Such duties as these often become serious burdens which interfere with school work.

Table XIV shows the most common of the community activities as given by the questionnaires together with the required time, and the weighted averages. See chapter III, page 30 for method of weighting.

Table XIV. Community Duties-Frequency and Time Consumption.

Community Duties	Sup't. Freq.	Hrs. per wk. Av.	Tchr. Freq.	Hrs. per wk. Av.	Sup't. Freq.	Hours Per wk. Av.	Total Wtd. Av.
Total	8		16		24		
P. T. A.	4	1.1	7	0.5	11	0.7	7.7
Church Work	2	2.5	7	1.1	9	1.4	12.6
Lodge or Club work	1	1.0	1	1.0	2	1.0	2.0
Hobby Club	0	0	2	0.5	2	0.5	1.0
Scout Work	0	0	1	?	1	?	?
Other Community Work	1	2.0	1	?	2	1.0	2.0
			Total		27		25.3

Mean = $25.3 \div 27 = 1$ hour per week per duty.

Mean = $27 \div 24 = 1.1$ duties per teacher.

Therefore $1 \times 1.1 = 1.1$ hours per week per teacher.

? -Teacher is doing work, but is uncertain as to time.

The Parent Teacher Association ranks first in the frequency of the community duties, due perhaps to the fact that it is so closely associated with the interest of the school. Table XIV shows that Scout work is carried on by only one teacher and that teacher was unable to give time required. Nine out of the 24 superintendents and teachers are doing some

phase of church work.

Teacher load resulting from community duties was derived from the mean time that is required of a teacher for doing that duty. The teachers of the three teacher high schools spend a mean time of 1.1 hours per week per teacher. The total mean load per week per teacher is 60 hours as shown on page 60. Therefore, 1.1 hours per week per teacher, the time required for doing the duties is equal to 1.8 percent of the total weekly teacher load.

Part III

Evaluation of Teacher Load for Three Teacher High Schools

Teacher load for the three teacher high schools was found by summing the load items which were given in clock hours. The final total mean load was interpreted in clock hours per week per teacher.

There was little chance for any overlapping of time in four of the load items, namely, Classroom and Study Hall Duties, Extra-curricular Activities, Committee Duties, and Community Duties. The item, Miscellaneous School Duties may, however, have had a chance of overlapping, especially under the questions of time spent for preparing for class and checking class work. The possibility of duplication of time would most likely have occurred in the time accounted for in supervision of study hall, as it is probable that some teachers do such work in study hall periods. If this be the case, the overlapping time would be a small amount as many of the teachers in these schools con-

ducted the school library, and the nature of most study halls in the small high schools would not warrant very many minutes be spent on the teachers' own work. By observing the organization of the questionnaire, one will find that a teacher could quite accurately account for all time without undue duplications. It is the author's opinion that the results are reasonably accurate and any chance for duplications of time would not figure more than 1 percent of the total weighted values, and there is as much chance for the amount to figure high as low.

Summation of Load Items

In order to evaluate the average clock hours of teaching load from the foregoing phases of this study one needs to total the mean load in hours per week per teacher derived from each separate phase. Table XV shows a mean load in hours per week per teacher of the 5 parts that add together to give the total weekly load.

Table XV. Total Mean Load Per Week Per Teacher for Three Teacher Schools.

Load Item	Hours per week per teacher	Percent of Total Load
Classroom Teaching and Study Hall Supervision	28	46.67
Miscellaneous duties	23	38.33
Extra-curricular duties	7.3	12.2
Community duties	1.1	1.8
Committee duties	.6	1.0
Total mean load	60	100

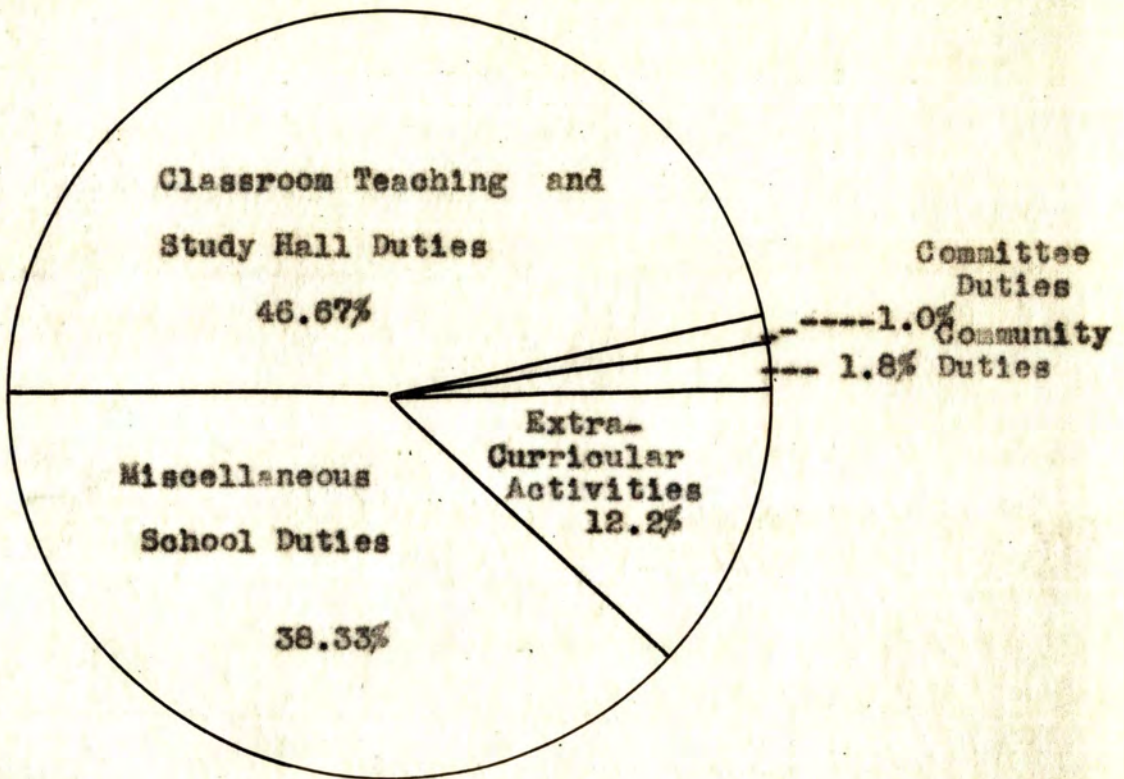


Figure 3. How the Teachers' Sixty Hour Week is Spent.

The wide variation of the time spent for the different load items is shown by the circle graph, Figure 3.

The regular school day activities including classes taught and study halls supervised requires the greatest amount of the teachers time. This represents the actual teaching time that the teacher spends during the week.

Miscellaneous school duties require the second largest part of the teachers' time. As this represents such work as preparation for class, checking class work, school work on Saturday and after six, it is to be expected that this group of duties would rank high in the final summary of the teaching load for these teachers.

Extra-curricular duties require approximately one-fourth as much time as the regular school day duties, or one-third as much time as the miscellaneous school duties. This would tend to show that the extra-curricular program has not yet developed beyond the point of being a major part of the school duties.

Community duties require approximately one hour per week. The time does not seriously interfere with the teachers school work, but it does show that each teacher is expected to serve at least in one community capacity.

Committee duties require a small part of the teachers time and do not affect the total load to any marked degree. The time is approximately equal to one-half of that spent on community duties.

A 60 hour week as found by totaling the five load items directly influencing the teacher load for the three teacher group is a relatively long week as compared with the working weeks of other professions which is most generally from 44 to 48 hours. Occupations and industries most generally work from 36 to 44 hours per week, and even the common laborer does not work much over 10 hours a day or 60 hours per week. Therefore, the teachers in this group work as long a week or longer than even the common laborer.

Teacher Load Calculated According to Douglass' Formula*

The technique used in this study analyses teacher load

* See Chapter II, p. 14.

in terms of hours per week as did Altstetter* in his study. Another common measure of teacher load is by the use of the Douglass Formula. Thus, an individual teacher, as nearly typical as possible, was selected from the three teacher school group and her load items as given by the questionnaire were expressed according to the formula.

In selecting the individual teacher it was considered best to choose one who was teaching with an eight period school day pattern, and who was teaching with the 6 class, 2 study hall plan; this pattern being the most frequent in the three teacher school group. The individual teacher's extra-curricular activities and other cooperations were also considered and found that she took part in such activities.

As taken from the questionnaire this Teacher A meets three sections of English; English I, II, and III with enrollments of 13, 17 and 16 students respectively. In addition she meets a section of biology of 9 students and a section of sewing of 10 students which is two periods in length. The periods are 40 minutes in length. This teacher also supervises 5 study halls per week, teaches 5 periods of music and gives on an average of 6 periods a week to cooperations including dramatics, play production, class adviser and sponsor to a girls' club.

* See Chapter II, p. 18.

By employing the Douglass formula to this individual teacher the following results:

$$TL = (30 - \frac{2 \times 5}{10} + \frac{375-600}{100} + \frac{16}{2}) (\frac{40+55}{100})$$

TL = 32.81 units.

"Douglass reports from a survey made of 76 teachers in the Edison High School, Minneapolis, and 228 teachers in 113 other high schools of Minnesota and adjoining states that the median teacher load was 31 units, the lower quartile was 26.5 units and the upper quartile 34.7 units as teacher load norms!(1)

The load of 32.81 units as found for Teacher A selected from the three teacher schools was 1.9 units below the upper quartile of 34.7 units, and 1.8 units above the median. This would indicate a relatively heavy teacher load.

Teachers' Personal Opinion of Load

In section VII of the questionnaires* the question, "How do you consider your load? (a). light, (b). medium, (c). heavy." was asked. This question gave the superintendents and teachers a chance to express their opinion of the load as they knew it to be. While this opinion does not affect the results of this study, it adds an interesting personal estimation by the teachers themselves to the load they are carrying.

(1). Harl R. Douglass, Organization and Administration of Secondary Schools, p. 120.

*See Appendix.

Table XVI, shows the comparison of opinions of the superintendents and teachers and also a combination of the frequencies of opinions.

Table XVI. Teacher Load as Judged by Superintendents and Teachers themselves.

Rating of Load	Sup'ts. Freq.	Tchrs. Freq.	Total Freq.
Total	8	16	24
Light	0	0	0
Medium	4	11	15
Heavy	4	5	9

Table XVI shows that no superintendents or teachers judge their teaching load as light. It is to be expected that the superintendents' load will range from medium to heavy in the average high school of this classification. The work of supervision and administration together with instructional work would tend to give them a greater amount of work than that of the average teacher. The teachers of this group more often reported a medium load.

It is to be expected that the teachers' and superintendents' personal opinion would be expressed as either medium or heavy when the totals from this study show the mean load as 60 hours per week per teacher.

Summary

The methods here used for determining the average load of the teachers in the three teacher high schools; a 60 hour week as found by this study, a 32.81 load unit according to

Douglass formula, and a personal opinion of teachers themselves ranging from medium to heavy, are in accord with each other. Then too, by comparing the clock hour load of the teachers of this study with the 60 hour week that Altstetter* found in his study "Do Extra Tasks Add an Extra Day to the Teachers' Week" it would be possible to conclude that the teachers in this group of schools are carrying a reasonably heavy load.

By applying the Douglass Formula to an individual teacher, as nearly typical as possible, the load units of 32.81 was found to range midway between the median norm and the upper quartile norm, which would indicate a fairly heavy load.

In consideration of the teachers' own opinion of their load it was found that they judged it as either medium or heavy, which would also bear out the fact that the load was reasonably heavy.

Thus, in all the measures used in determining the load of the teachers of the three teacher schools, the conclusions are about the same; that the average load is relatively heavy.

* See Chapter II, p. 18.

Chapter VI

Teacher Load as Found in the Four Teacher

Four Year Accredited High Schools

This chapter deals primarily with the tabulations and conclusions drawn from the questionnaires which were received from the four teacher high schools. These schools are considered second in this study and represent the middle group of high schools selected. Questionnaires were received from 60 percent of the selected group of four teacher schools.

The findings, which were collected from the questionnaires returned, are in consecutive order as follows: Part I. The General Conditions Affecting Teacher Load, (1). Professional Training, (2). Pupil-teacher Ratio, (3). Days on Duty Other than Regular Term. Part II. Items Directly Influencing Teacher Load, (1). Classroom and Study Hall Duties, (2). Extra-curricular Activities, (3). Miscellaneous School Duties, (4). Committee Duties, (5). Community Duties. Part III. Evaluation of Teacher Load for the Four Teacher Schools, (1). Summation of Load Items, (2). Douglass Formula Applied, (3). Teachers' Personal Opinion of Load.

Part I

General Conditions Affecting Teacher Load

The general conditions which affect teacher load but which cannot be measured in clock hours are given. This enables the reader to understand those things which contribute indirectly to the load of the teacher.

Professional Training

The professional training of teachers and superintendents has an element of worth in regards to teacher load. Teachers with proper training are better qualified and often more capable of carrying the teaching load expected of them. Table XVIII shows the degrees held according to sex in the four teacher schools.

Table XVII. The College Degrees Held-Four Teacher Schools.

College Degree	Male		Female	Total
	Sup't. Freq.	Tchr. Freq.	Tchr. Freq.	
Total	26	26	40	92
B.A.	16*****	17	24**	57
B.S.	10	9*	16*	35

* Indicates that superintendents and teachers also hold either M.A. or M.S. degrees.

Table XVII shows that the men exceed the women in number of teaching positions and in every case the position of superintendent is filled by a man. In every case the teacher held a degree.

From section I, the Teaching Schedule, of the questionnaires one is able to determine the number of subject matter fields in which superintendents and teachers teach. Table XVIII shows the number of subject matter fields and the frequency of the superintendents and teachers.

Table XVIII. Number of Fields in Which Superintendents and Teachers teach.

No. of Tching. Fields	Sup't. Freq.	Tchr. Freq.	Sup't. Tchr. Freq.	Total Av.Wtd.
Total	26	66	92	
1	5	7	12	12
2	11	24	35	70
3	10	27	37	111
4	0	7	7	28
5	0	1	1	5
		Total	92	226

Mean equals $226 \div 92$ equals 2.45.

As seen in Table XVIII the largest number of the superintendents and teachers are teaching in three subject matter fields. Only 1 of the 92 were teaching in 5 fields and 12 of the 92 were teaching in but 1 field.

From section VI, General Information, of the questionnaires one is able to determine the subject matter fields in which the superintendents and teachers are prepared. By inspection of section I, one is able to determine if the teacher is teaching any subjects in fields in which he has not been prepared, according to information given in section VI. It is generally agreed that teacher load is greater for teachers who are not adequately trained, or who are teaching in fields in which they have not had sufficient preparation. From the information on the questionnaires it was found that there were teachers in the four teacher schools who were not teaching in their

trained subject matter fields, so far as major and minor fields were concerned. However, some training may have been had, but this could not be determined from the information received. The reader will please note that the word "within" in Table XIX refers to teachers who have had a major or minor in the field of the subject taught; and the word "without" refers to teachers who did not have a major or minor in the field of the subject taught. Table XIX shows the subject matter fields that teachers were prepared to teach in and the subject matter fields that teachers were not prepared to teach in.

Table XIX. Frequency of Subject Matter Fields that Teachers Were Prepared for and Subject Matter Fields not Prepared for.

Subj. Matter Fields Preparation		Sup't. Freq.	Tchr. Freq.	Sup't. Tchr. Freq.	Total Weighted Preparation	
Within	Without				Within	Without
Total		8	15	23		
3	2	0	1	1	3	2
3	1	2	1	3	9	3
3	0	0	2	2	6	0
2	2	1	1	2	4	4
2	1	0	5	5	10	5
2	0	1	1	2	4	0
1	2	1	0	1	1	2
1	1	3	2	5	5	5
1	0	0	2	2	2	0
		Total		23	44	21

Mean equals $170 \div 91 = 1.54$ number of subject matter fields teachers teach with preparation.

Mean = $55 \div 91 = .56$.

As shown by Table XIX teachers taught in 3 subject matter fields in which they had either majors or minors, and approximately 1 subject matter field in which they did not have majors or minors. The ratio was 3 to 1. It is likely, however, that the teachers had some training in the subjects taught without a major or minor, although the questionnaires did not call for such a detailed transcript of the teachers' training.

Pupil-Teacher Ratio

The ratio of pupils per teacher in the four teacher high schools was found in the same manner as in the three teacher schools(See Chapter IV, pp. 41-42). The maximum ratio was 27.3 to 1; the minimum ratio was 10 to 1, and the average ratio was 19 to 1. The average and minimum ratios were below the 25 to 1 pupil teacher ratio as recommended by the State Department of Education, while the maximum ratio was but 2 pupils more than the recommended pupil teacher ratio.

From the information given on the questionnaires the average, the maximum average and the minimum average number of students in class and study hall was determined. The average for the superintendents and teachers was weighted and the results for the combined groups is given in Table XX. The method of weighting is explained in Chapter III, page 30.

Table XX. Number of Students in Class and Study Hall Per Teacher.

	Superintendents			Teachers			Sup't.
	Av.	Max.	Min.	Av.	Max.	Min.	Tchr. Av. Wtd.
Total	26			66			92
Number Pupils in class							
Per day	84.0	139.0	40.0	103.0	195.0	44.0	98.0
Per week	420.0	695.0	200.0	517.7	975.0	220.0	490.0
Number Pupils in Study Hall							
Per day	39.4	112.0	14.0	43.5	215.0	11.0	41.3
Per week	197.0	560.0	70.0	217.6	1075.0	55.0	206.3

One will note from Table XX that the superintendents on an average taught approximately 20 less pupils per day as compared to teachers who taught on an average of 103.5 pupils per day. Superintendents on an average supervised 4 less students in study hall per day as compared to teachers.

The average number of pupils taught per day was 98 which is 35 percent below the maximum of 150 pupils per teacher per day or 19 percent below 120 pupils per day per teacher as recommended by the State Department of Education. The State Department recommends that the total number of pupils per teacher be no more than 120, and that 150 pupils per teacher per day be the maximum load.

There was a variation between the maximum number of students in class per day and the minimum number of students in class per day of 99 for the superintendents and 150 for the teachers.

Class size is a definite factor of teacher load and is impossible to measure in hours. A low student enrollment in classes would tend to make the instructional load lighter to some extent. Individual assignments would be less; there would be fewer papers to correct and mark and less students asking for special help. By asking for the time spent in preparing for class, checking class work, the author feels that the teacher load due to variation in class size was thereby taken into account.

The data from the questionnaires received from the four teacher schools revealed a wide variation in the size of classes. This variation is shown in Table XXI.

Table XXI. Frequency of Class size.

Pupils Per Class	Sup't. Class Freq.	Tchr. Class Freq.	Total Class Freq.	Total Class Av. Wtd.
1-5	4	7	11	33
6-10	11	47	58	464
11-15	24	104	128	1664
16-20	28	63	91	1638
21-25	17	48	65	1495
26-30	8	39	47	1316
31-35	6	6	12	396
36-40	1	4	5	190
41-45	1	1	2	88
46-50	0	1	0	48
51-55	0	0	0	0
56-60	0	1	1	58
61-65	0	0	0	0
66-70	2	0	2	136
Total			423	7524

Mean = 17.8 pupils.

Median = 16.1 pupils.

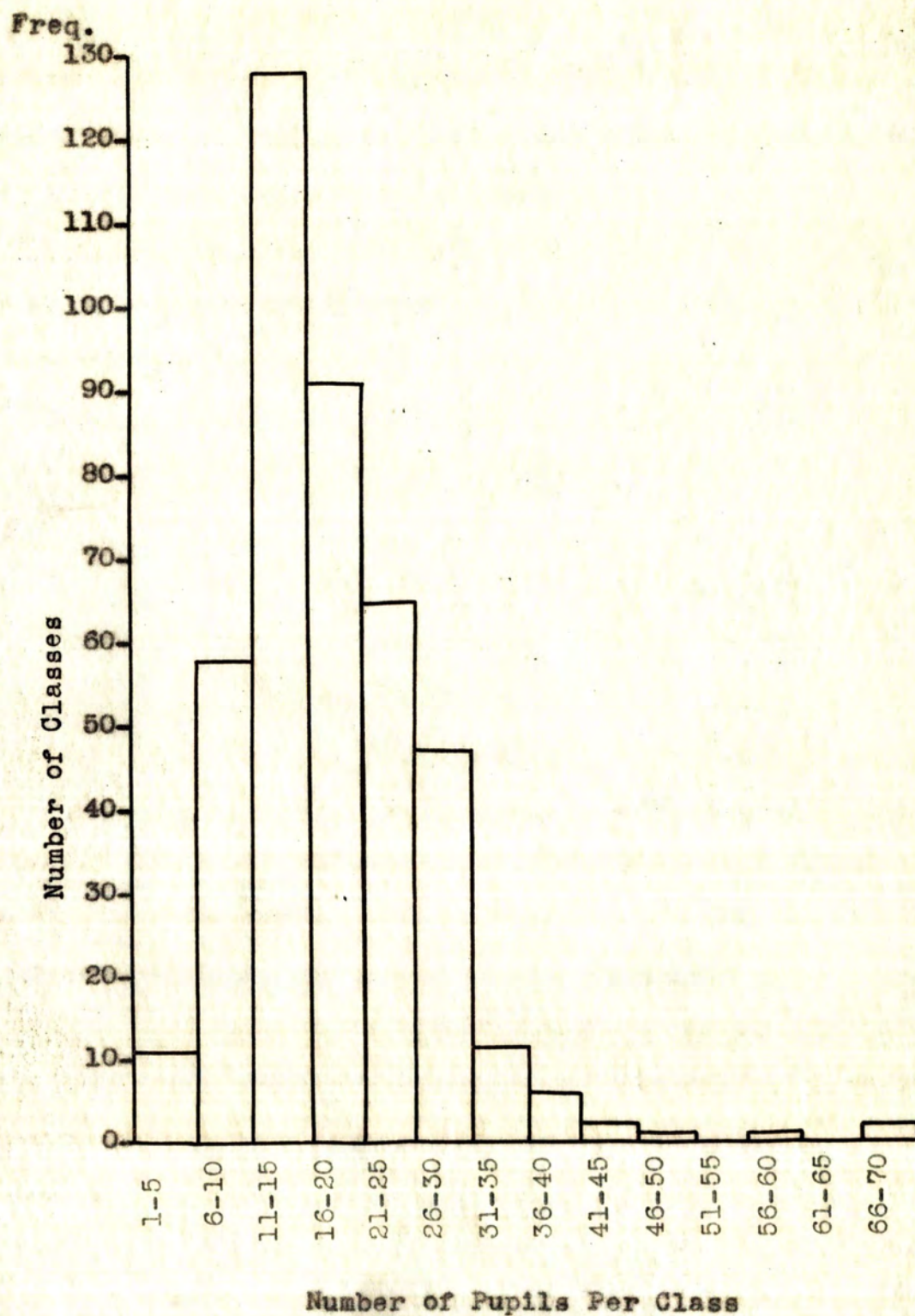


Figure 14. Distribution of Number of pupils Per Class With Number of Classes.

As noted from Table XXI there were but 10 classes with more than 35 students per class while there were 11 classes with 5 or less students per class. The greatest number of classes had from 11-15 students enrolled.

From the questionnaires it was found that the largest single class for a superintendent or teacher was 69 students and the smallest single class 3 students. It was also found that the largest single study hall was 95 students and the smallest single study hall 12 students.

Days on Duty Other Than Regular School Term

Superintendents and teachers have to spend more time in the fall before school opens in order to organize the school year program. Likewise, they remain after school closes in the spring for the purpose of making final records and checking equipment. This work adds to the yearly load and is given here only for its general value.

The superintendents reported 14 days before school opens in the fall as compared to the teachers who reported 1.5 days early. This difference is normal as the superintendents have the responsibility of getting the school plant in readiness for the fall opening. The superintendents reported that they remained on duty after school closed in the spring 9 days as compared to the teachers who remained .5 days. One agriculture teacher was an exception and reported 30 days early in the fall, and remained on duty 44 days after school closed in the spring. These figures were not included in the averages.

Part II

Items Directly Influencing Teacher Load

The following deals primarily with data taken from the questionnaires to determine the clock hours of teacher load for the four teacher schools.

Classroom and Study Hall Duties

In general, the superintendents have more free periods than do the teachers. However, they spent approximately 5/6 of their time in teaching class and supervising study hall. For this reason they were considered with the teachers in comparing the school day patterns.

The questionnaires revealed that the four teacher schools divide the school day in one of three ways; the eight period day, the seven period day or the six period day. Table XXII, page 76 shows this division of the school day together with the frequency of the school day patterns and the total hours resulting from these patterns.

Table XXII. Frequency of Patterns-Total Periods & Hours Per Day.

Patterns of School days			Frequency			Total periods a X f plus b X f	Total hours per day Av. Wtd.
Class	St.H.	Free	Sup't. Freq.	Tchr. Freq.	Sup't. Tchr. Freq.		
Total			26	66	92		
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
<u>8 period day</u>							<u>g X .75</u>
8	0	0	3	6	9	72	64.
7	1	0	0	15	15	120	90.
7	0	1	0	3	3	21	15.75
6	2	0	0	13	13	104	78.
6	1	1	0	6	6	42	31.5
6	0	2	1	1	2	12	9.0
5	3	0	1	3	4	32	24.
5	2	1	2	3	5	35	26.25
5	1	2	3	0	3	18	13.5
4	3	1	1	0	1	7	5.25
4	2	2	1	0	1	6	4.5
4	1	3	4	0	4	20	15.
4	0	4	1	0	1	4	3.
3	2	3	2	0	2	10	7.5
<u>7 period day</u>							<u>g X .86</u>
7	0	0	0	4	4	28	24.
6	1	0	0	5	5	35	30.1
6	0	1	0	1	1	6	5.16
5	2	0	0	4	4	28	24.
5	1	1	1	0	1	6	5.16
5	0	2	2	0	2	10	8.6
4	3	0	0	1	1	7	6.02
4	0	3	2	0	2	8	6.88
3	1	3	1	0	1	4	3.44
<u>6 period day</u>							<u>g X 1.</u>
6	1	0	0	1	1	6	6.
4	1	1	1	0	1	5	5.
			Total		92		511.61

Mean = $511.6 \div 92 = 5.6$ hours per day or 28 hours per week per teacher.

One will note from Table XXII that the most common way of dividing the school day was into eight periods. The seven period day was also being used by a number of schools.

It is noted that three of the superintendents had eight classes per day, which is the maximum number of classes that could be held in the eight period day. One other superintendent conducted seven classes and one study hall. This is a total of 15 percent of the superintendents who conduct class and supervise study hall the entire day.

Ten teachers out of 66 conducted class the entire day. In addition to these 10 teachers, 42 teachers conducted class and supervised study hall the entire day. In other words approximately 80 percent of the teachers in four teacher schools conduct class or study hall the entire day. By grouping the superintendents and teachers together one finds that 60 percent of them are conducting class or supervising study hall the entire day which is a definite overload. This overload can be avoided as shown by the school day patterns in Table XXII, page 76.

Teacher load resulting from the classroom and study hall duties was derived from the mean time that was required of a teacher in teaching class and supervising study hall. The teachers of the four teacher schools spent a mean time of 28 hours per week per teacher. The total mean load in hours per week for this group was 63.29 hours as shown on page 88. Therefore, 28 hours per week per teacher, the time required for classroom and study hall duties is equal to 44.2 percent of the total week load. Thus over 50 percent of the teachers' time is absorbed in other school duties, a fact often unappreciated by public or even sometimes by board of directors and administrators.

Extra-Curricular Activities

Teachers in the four teacher schools usually are responsible or partly responsible for more than one activity. The number of activities which these teachers sponsored is given in Table XXIII.

Table XXIII. Number of Extra-curricular activities per Superintendent and Teacher.

No. of Duties	Sup't. Freq.	Tchr. Freq.	Sup't. Tchr. Freq.
Total	26	66	92
1	1	12	13
2	7	25	32
3	13	14	27
4	4	10	14
5	1	5	6

One notes by observing Table XXIII that 1 superintendent and 5 teachers sponsored 5 activities. One superintendent and 12 teachers sponsored 1 activity, however, most of the teachers sponsored either two or three activities.

The questionnaire was organized to enable the teachers to give not only the activity which they were responsible for, but also the time that it required per week. Table XXIV shows the tabular information together with weighted results of the combined groups of superintendents and teachers. See chapter III, page 30, for method of weighting.

Table XXIV. Frequency and Time Consumption of Extra-Curricular Activities.

Extra-curricular duties	Sup't. Hrs. per		Tchr. Hrs. per		Sup't. Hours		Total
	Freq. wk.	Av.	Freq. wk.	Av.	Tchr. per wk.	Wtd.	
Total	26		66		92		
Class Adviser	25	1.1	64	1.2	89	1.2	106.8
Coach Athletics	10	3.8	18	6.2	28	5.4	151.2
Play Production	4	4.4	28	2.0	32	2.3	73.6
Direct Dramatics	3	2.3	16	1.9	19	1.8	34.2
Direct Music	2	5.0	21	5.5	23	5.5	126.5
Other Extra-Curri. Duties	6	2.8	22	3.2	28	3.1	86.8
			Total		219		579.1

Mean = $579.1 \div 219 = 2.6$ hours per week per duty.

Mean = $219 \div 92 = 2.4$ duties per teacher.

Therefore $2.6 \times 2.4 = 6.2$ hours per week per teacher.

As shown by Table XXIV 89 of the 92 superintendents and teachers were class advisors. This is to be expected because in the four teacher high schools there would be a teacher for each of the four classes. The reason for the other 3 teachers not advising a class was due to the fact that they were only doing part time teaching in the high school, and the rest of the time in the elementary grades of the school systems.

The teachers who directed music spent 5.5 hours per week,

which was .1 hour more than the teachers who coached athletics. These were the activities which required the greater amount of time as compared to the other extra-curricular activities.

The questionnaires revealed that the other extra-curricular activities included a school paper, school annual, library supervision and work, debate coaching, preparing and serving hot lunches, adviser of a Future Farmer of America organization, coach of girls' diamond ball team, conductor of a high school operetta, supervision of a dormitory and work in the field of art.

There was some indication that one teacher would assist another in carrying out some of the activities. This condition seemed to exist with dramatics, play production and music, which is a logical arrangement in so far as an operetta would require coaching in speech together with coaching in music.

Teacher load resulting from extra-curricular activities is derived from the mean time that is required of a teacher in conducting the activity. The teachers of the four teacher schools spent a mean time of 6.2 hours per week per teacher. The total mean load in hours per week per teacher for this group was 63.29 as shown on page 88. Therefore, 6.2 hours per week per teacher, the time required for extra-curricular activities is equal to 9.8 percent of the total weekly teacher load.

Miscellaneous School Duties

Reports on the miscellaneous school duties were complete

and gave a good picture of the things which teachers are sometimes expected to do in order to be considered a punctual, considerate and well prepared individual. The average person does not always give the teacher due credit for work done before 9 o'clock in the morning and after 4 o'clock in the afternoon. Many of the teachers reported that they did some work during the noon hour as well as before 9, after 4 and other duties as is shown in Table XXV.

Table XXV. Frequency and Time Consumption of Miscellaneous School Duties.

Miscellaneous School Duties	Sup't. Hrs. per Freq.	Hrs. per wk. Av.	Tchr. Hrs. per Freq.	Hrs. per wk. Av.	Sup't. Hours Tchr. per wk. Freq.	Av. Wtd.	Total Wtd. Av.
Total	26		66		92		
Preparing for Class	26	9.5	66	9.3	92	9.4	864.8
Checking Class Work	26	6.7	66	6.2	92	6.3	579.6
Before Nine	26	3.3	66	2.5	92	2.7	248.4
After Four	26	3.3	66	1.7	92	2.1	193.2
Teacher Meetings	24	0.7	23	0.5	47	0.6	28.2
School Work Saturday	22	3.4	48	3.1	70	3.2	224.0
School Work After Six	14	4.1	31	5.5	45	5.0	225.0
Noon Hour Duties	13	2.3	34	1.8	47	2.0	94.0
Time for Slow Student	11	2.4	16	1.9	27	2.1	56.7
Time for Superior Student	2	2.5	3	2.0	5	2.2	11.0
			Total		609		2524.9

Mean = $2524.9 \div 609 = 4.1$ hours per week per duty.

Mean = $609 \div 92 = 6.6$ duties per teacher.

Therefore $4.1 \times 6.6 = 27$ hours per week per teacher.

Table XXV shows that preparing for class required an average of 9.4 hours per week per teacher as the greatest amount of time spent as compared with any other single item.

The least amount of time was that required for teacher meetings, an average of .6 hours per week per teacher. It will be noted that 5 of the duties required 2 hours and a fraction. Data from the questionnaires revealed that the greatest amount of time reported by a single teacher in preparation was 32 hours per week, and the least amount of time was 2 hours. The teacher who reported 32 hours for preparation spent 2 hours for checking work, and the 3 teachers who reported 2 hours for preparation spent 2 hours checking work.

The time spent for checking work was somewhat less as compared to class preparation. The maximum time was 20 hours per week, and this teacher reported 20 hours in class preparation also. The minimum time for checking work was 2 hours per week as given by 3 teachers, the condition mentioned in the foregoing paragraph.

Superintendents reported that they arrive at the school at 8:20 A.M. as compared to the teachers who reported that they arrive at 8:30 A.M. Superintendents leave the school at 4:38 P.M. as compared to the teachers who leave at 4:22. The time that they arrive for duty in the morning and leave the school adds to the school day directly.

Some of the duties done during the noon hour included coaching athletic teams, supervising playground activities, and supervising in the halls and corridors of the school.

Teacher load resulting from miscellaneous school duties was derived from the mean time that was required of a teacher in doing that duty. The teachers of the four teacher schools spent a mean time of 27 hours per week per teacher. The total

mean load in hours per week per teacher for this group was 63.29 hours as shown on page 88. Therefore, 27 hours, the time required for miscellaneous school duties is equal to 42.7 percent of the total weekly load. Thus only 1.5 percent less time was spent for these duties than for the classroom and study hall duties.

Committee Duties

In the four teacher high schools, the reports from the questionnaires evidenced a fairly well organized committee system. Table XXVI shows the time spent on the various committees.

Table XXVI. Frequency and Time Consumption of Committee Duties

Committee Duties	Sup't. Hrs. per		Tchr. Hrs. per		Sup't. Hours		Total
	Freq. wk.	Av.	Freq. wk.	Av.	Tchr. per wk.	Wtd.	
					Freq. Av.	Wtd. Av.	
Total	26		66		92		
School Supplies	6	1.5	0	0	6	1.5	9.0
Pupil Control	5	1.7	3	0.7	8	1.4	11.2
Athletic	5	0.8	4	1.7	9	1.2	10.8
Program of Studies	4	0.7	1	1.0	5	0.7	3.5
Examination	4	0.4	1	2.0	5	0.7	3.5
School Function	3	0.5	1	1.0	4	0.6	2.4
Enrollment	3	0.4	3	1.3	6	0.9	5.4
Any Other	1	2.0	0	0	1	2.0	2.0
			Total		44		47.8

Mean = $47.8 \div 44 = 1.1$ hours per duty per week.

Mean = $44 \div 92 = .5$ duties per teacher.

Therefore $1.1 \times .5 = .55$ hours per week per teacher.

As shown by Table XXVI the committee duties required approximately 1 hour per week of the teacher regardless of the kind of committee. The table also shows that one teacher answered the question of serving on any other committee, and that committee was to arrange for visual education. The significant point revealed from Table XXVI, page 84 is the frequency which the superintendents and teachers reported. In other words, only 48 percent of the superintendents and teachers served on a committee. Twenty superintendents and 62 teachers reported that they had no special committee system in their schools. Some stated that they did the work as covered by the list of committees, but they did not serve on any definite committee.

Teacher load resulting from committee duties was derived from the mean time that is required of a teacher in serving on the committee. The teachers of the four teacher schools spent a mean time of .55 hours per week per teacher. The total mean load in hours per week for this group was 63.29 hours as shown on page 88. Therefore, .55 hours, the time spent on committee duties is equal to .9 percent of the total weekly load.

Community Duties

The teachers of this group of schools engaged in all of the mentioned community duties and some community duties that were dependent upon individual localities. Teachers are expected to devote a portion of their time to work and activities of the community in which they are employed, however,

there is a danger of spending too much time on such activities. Table XXVII lists the community duties, and gives the frequency and time consumption of each.

Table XXVII. Frequency and Time Consumption of Community Duties.

Community Duties	Sup't. Hrs. per		Tchr. Hrs. per		Sup't. Hours		Total
	Freq.	Av.	Freq.	Av.	Freq.	Av.	
Total	26		66		92		
Church Work	12	1.5	23	2.0	35	1.8	63
P. T. A.	12	0.9	22	0.7	34	0.8	27.2
Lodge or Club work	8	3.3	8	0.9	16	2.1	33.6
Hobby Club	3	0.8	2	1.0	5	0.9	4.5
Scout Work	1	1.0	4	3.0	5	2.5	7.5
Other Com. Work	5	1.8	1	1.0	6	1.6	9.6
			Total		101		145.4

Mean = $145.4 \div 101 = 1.4$ hours per week per duty.

Mean = $101 \div 92 = 1.1$ duties per teacher.

Therefore $1.4 \times 1.1 = 1.54$ hours per week per teacher.

Table XXVII shows that Scout work required the greatest amount of time in comparison with any other single duty; the second highest being Lodge or Club work. More individuals were engaged in Church work and P. T. A. work than any other single duty. A significant point of interest revealed by Table XXVII was the low frequency reported for most of the duties.

The questionnaires showed that other community duties included N.Y.A. for a group of young people ~~not~~ in high school, chief of the fire department, chairman of a Play Day organization, chairman of a community club, leader of a

community chorus, program committee for Legion Post, and an officer of a social club.

Teacher load resulting from community duties was derived from the mean time that was required of a teacher in doing a duty. The teachers of the four teacher schools spent a mean time of 1.54 hours per week per teacher. The total mean load in hours per week for this group was 63.29 hours as is shown on page 88. Therefore, 1.54 hours, the time required for community duties is equal to 2.4 percent of the total weekly load.

Part III

Evaluation of Teacher Load for Four Teacher High Schools

Teacher load for the four teacher high schools was found by summing the load items which were given in clock hours. The final total mean load was interpreted in hours per week per teacher.

The chance for any overlapping of time in any of the items would be no different from that of the three teacher schools. (See Chapter V, page 58.)

Summation of Load Items

In order to evaluate the average clock hours of teacher load from the foregoing phases of this study one needs to total the mean load in hours per week per teacher derived from each separate phase. Table XXVIII shows a mean load in hours per week per teacher of the 5 load items which when added together give the total weekly load.

Table XXVIII. Total Mean Load Per Week Per Teacher for Four Teacher Schools.

Load Items	Hours per week Per Teacher	Percent of Total load
Classroom Teaching and Study Hall Supervision	28	44.2
Miscellaneous school duties	27	42.7
Extra-curricular duties	6.2	9.8
Community duties	1.54	2.4
Committee duties	.55	.9
Total mean load	63.29	100

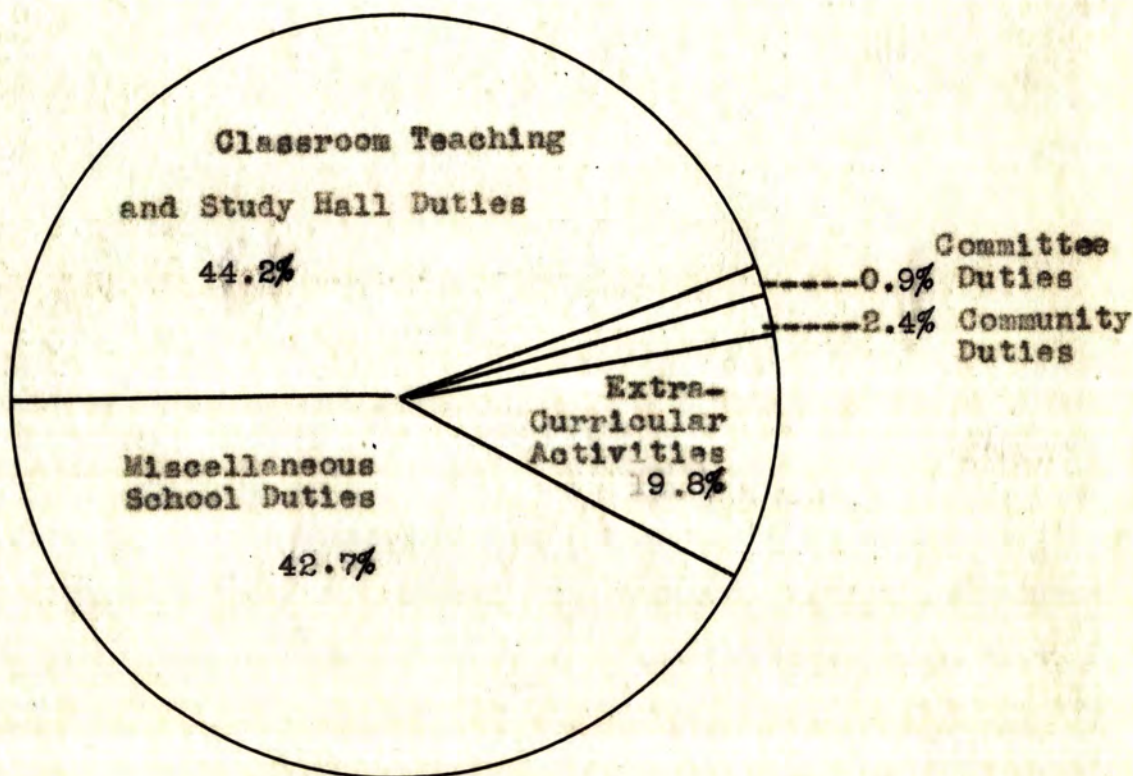


Figure 5. How the Teachers' 63.29 Hour Week is Spent.

As shown by Figure 5 the classroom and study hall duties required the greatest percentage of the teachers' time of the four teacher school group. This represents the actual teaching time that the teachers spent during the week.

The miscellaneous school duties required the second largest part of the teachers' time. As this includes such

work as class preparation, checking class work, school work on Saturday and after six, it is to be expected that the time required would rank high in the final total load.

The extra-curricular activities, requiring 9.8 percent of the total weekly load, was less as compared to the three teacher school group which was 12.2 percent; or the five teacher school group which was 12.5 percent.

The community duties which required 2.4 percent of the total weekly load do not seriously interfere with the teachers' other regular duties.

Committee duties required the least amount of time as compared with the other load items.

A 63.29 hour week as found by totaling the five load items directly influencing teacher load, is a heavy week as compared to the working weeks of other professions or occupations, which are generally on the 48 hour basis or the 40 hour week of many of the industries.

Teacher Load Calculated According to Douglass' Formula

The technique used in this study analyzes teacher load in terms of hours per week as did Altstetter* in his study. Another common measure of teacher load is by the use of the Douglass Formula.# Thus, an individual teacher, as nearly typical as possible, was selected from the four teacher school group and her load items as given by the questionnaire were expressed according to the formula.

* See Chapter II, page 18.

See Chapter II, page 14.

In selecting an individual teacher from the four teacher school group it was considered best to choose one who was teaching with an eight period school day pattern, and who was teaching with the 6 class, 2 study hall plan; this pattern being most satisfactory for comparison with the three and five teacher schools. This pattern is second in frequencies also for the four teacher schools. The individual teacher's extra-curricular activities and other cooperations was also considered and found that she took part in such activities.

As taken from the questionnaire Teacher B meets 4 sections of English; English I, II, III and IV, with enrollments of 37, 23, 18 and 27 students respectively. In addition she meets a section of Journalism of 18 students and a section of Latin of 13 students. The class periods are 45 minutes in length. This teacher also supervises two study halls a day or 10 a week; she gives on an average of 7.7 periods a week to cooperations including dramatics, girls athletics, and class adviser duties.

By employing the Douglass formula to this individual teacher, the following results:

$$TL = (30 - \frac{2 \times 0}{10} + \frac{680 - 20 \times 30}{100} + \frac{17.7}{2}) (\frac{45+55}{100})$$

TL = 39.65 load units weekly.

" Douglass reports from a survey made of 76 teachers in the Edison High School, Minneapolis, and 228 teachers in 113 other high schools of Minnesota and adjoining states that

the median is 31 units, the lower quartile 26.5 units and the upper quartile 34.7 units as teacher load norms!(1)

The load of 39.65 units as found for this selected teacher from the four teacher school is approximately 5 units above the upper quartile which is 34.7 units. Therefore, according to the Douglass formula the load of this individual teacher is termed heavy.

Teachers' Personal Opinion of Load

In section VII of the questionnaires* the question "How do you consider your load? (a). light, (b). medium, (c). heavy," was asked. This question gave the teachers and superintendents a chance to express their opinion of the load as they knew it to be. While this opinion does not affect the results of this study, it adds an interesting personal estimation by the teachers themselves as to the load they were carrying.

Table XXIX^V shows the comparison of opinions of the superintendents and teachers and also a combination of the frequencies.

Table XXIX^V. Teacher Load as Judged by Teachers and Superintendents themselves.

Rating of Load	Sup't. Freq.	Techr. Freq.	Total Freq.
Total	25	66	91
Light	0	2	2
Medium	6	32	38
Heavy	19	32	51

(1). Harl R. Douglass, Organization and Administration of Secondary Schools, p. 120.

* See Appendix.

One superintendent did not report the load degree, therefore, the frequency of the superintendents and the total frequency is one less than the total of the groups in the other sections of the study for the four teacher schools.

Of the two teachers who reported a light load, one stated that the load ranged from light to medium as the duties of the school program varied. One superintendent reported an extra heavy load depending upon seasonal duties and activities of the school and community.

It is to be expected that the teachers' and superintendents' opinions would range from medium to heavy, when the totals from this study show the mean load as 63.29 hours per week per teacher.

Summary

The methods here used for determining the average load of the teachers of the four teacher high schools; a 63.29 hour week as found by this study, a 39.65 load unit according to the Douglass formula, and a personal opinion of the teachers themselves which revealed that a majority considered their load heavy, are in accord with each other. Then too, by comparing the clock hour load of the teachers of this study with the 60 hour week that Altstetter* found in his study "Do Extra Tasks Add An Extra Day to the Teachers' Week" it is necessary to conclude that the teachers in this group of schools are carrying a heavy load.

* See Chapter II, p. 18.

By applying the Douglass formula to an individual teacher, as nearly typical as possible, the load units of 39.65 was approximately 5 points above the upper quartile norm, which would indicate a heavy load.

In consideration of the teachers' own opinion of their load it was found that in the majority of the cases that they judged it as heavy, which would bear out the fact that the load was heavy.

Thus, in all the measures used in determining the load of the teachers of the four teacher schools, the conclusions are about the same; that the average load is heavy.

Chapter VII

Teacher Load as Found in the Five Teacher Four Year Accredited High Schools

This chapter deals primarily with the tabulations and conclusions drawn from the questionnaires received from the 40 percent of the selected group of five teacher high schools.

These five teacher schools, from the standpoint of the number of teachers, represented the maximum size school to which questionnaires were sent.

The findings, which were collected from the questionnaires returned, are in consecutive order as follows: Part I. General Conditions Affecting Teacher Load, (1). Professional Training, (2). Pupil-teacher Ratio, (3). Days on Duty Other Than Regular Term. Part II. Items Directly Influencing Teacher Load, (1). Classroom and Study Hall Duties, (2). Extra-Curricular Activities, (3). Miscellaneous School Duties, (4). Committee Duties, (5). Community Duties. Part III. Evaluation of Teacher Load for the Five Teacher Schools, (1). Summation of Load Items, (2). Douglass Formula Applied, (3). Teachers' Personal Opinion of Load.

Part I

General Conditions Affecting Teaching Load

In general, there are some conditions which affect the teaching load that cannot be measured in clock hours but contribute indirectly. The questionnaire contained a group of questions pertaining to these conditions, and the information from these questions is tabulated and discussed.

Professional Training

The professional training of the superintendents and teachers has an element of worth in regards teacher load. Teachers with proper training are better qualified, and more often more capable of carrying the teaching load expected of them.

In general, there was little difference between the qualifications of the superintendents and teachers in the five teacher group as compared with the three and four teacher school groups, (see Chapter V, page 38 and Chapter VI, page 67), as evidenced from data collected by the questionnaires. Table XXX shows the degrees held according to sex in the five teacher schools.

Table XXX. The College Degrees Held-Five Teacher Schools.

College Degree	Male		Female	
	Sup't. Freq.	Tchr. Freq.	Tchr. Freq.	Total Freq.
Total	6	8	15	29
B.A.	3*	4	10*	17
B.S.	3	4	5	12

* Indicates that 1 superintendent and 1 female teacher have M.A. degree besides the B.A. degree.

Table XXX shows the teaching positions are quite evenly divided among the men and women in this classification of school. There was but 1 superintendent and one teacher with a Master of Arts degree.

From section I, The Teaching Schedule, of the questionnaire one is able to determine the number of subject matter

fields in which superintendents and teachers taught, Table XXXI shows the number of subject matter fields and the frequency of the superintendents and teachers.

Table XXXI. Number of Fields in Which Superintendents and Teachers Teach.

No. of Teaching Fields	Sup't. Freq.	Techr. Freq.	Sup't. Techr. Freq.	Total Av. Wtd.
Total	6	23	29	
1	2	6	8	8
2	2	11	13	26
3	2	6	8	24
4	0	0	0	0
5	0	0	0	0
		Total	29	58

$$\text{Mean} = 58 \div 29 = 2.$$

As seen by Table XXXI the largest number of the superintendents and teachers were teaching in two subject matter fields. There were 8 teaching in but 1 field and likewise, 8 teaching in three subject matter fields.

From section VI, General Information, of the questionnaires one is able to determine the subject matter fields in which the superintendents and teachers are prepared. By inspection of section I, one is able to determine if the teacher was teaching any subjects in fields in which he did not have a major or minor, according to information given in section VI. It is generally agreed that teacher load is greater for teachers who are not adequately trained, or who are teaching

in fields in which they have not had sufficient preparation. From the information given on the questionnaires it was found that there were teachers in the five teacher schools who were teaching outside of their trained fields. However, the teacher may have had some training in the subjects taught, but from the information given on the questionnaires this condition could not be determined as only the major and minor fields of preparation were asked for. In Table XXXII the word "within" refers to teachers who have a major or minor in the fields of the subject taught. The word "without" refers to teachers who did not have a major or minor in the field of subject taught.

Table XXXII. Frequency of Subject Matter Fields that Teachers are prepared for and Subject Matter Fields that Teachers are not prepared for.

Subject Matter Fields		Sup't.		Sup't.		Total Weighted	
Preparation							
Within	Without	Freq.	Freq.	Freq.		Within	Without
Total		6	23	29			
3	0	1	2	3		9	0
2	1	0	3	3		6	3
2	0	2	10	12		24	0
1	2	0	1	1		1	2
1	1	0	1	1		1	1
1	0	2	6	8		8	0
		Total		28		49	6

Mean = $49 \div 28 = 1.75$ number of subject matter fields teachers teach in with preparation.

Mean = $6 \div 28 = .21$ number of subject matter fields teachers teach in without preparation.

It is evident from Table XXXII that teachers taught in approximately two subject matter fields for which they were prepared, and in less than one subject matter field in which they were not prepared for. Only 1 teacher taught without the subject matter field in 2 instances. There were but 5 teachers out of 29 who taught without subject matter field preparation. They may have had some training in the subjects however.

Pupil-Teacher Ratio

The ratio of pupils per teacher in the five teacher high school was found in the same manner as in the three teacher schools, (See Chapter V, page 42). The maximum ratio was 23 to 1. The minimum ratio was 8.3 to 1. The average ratio was 17 to 1.

From the questionnaire returns the average, the maximum average, and the minimum average number of students in class and study hall, per teacher was determined.

The average for superintendents and teachers was weighted and the results given for the combined groups, as shown by Table XXXIII. The method of weighting is explained in chapter III, page 30.

Table XXXIII. Ratio of Students in Class and Study Hall Per Teacher.

	Superintendents			Teachers			Sup'ts.
	Av.	Max.	Min.	Av.	Max.	Min.	Tchrs. Av. Wtd.
Total	6			23			29
Number Pupils in Class							
Per Day	71.8	96.0	49.0	101.7	177.0	60.0	95.5
Per Week	359.0	480.0	245.0	508.5	885.0	300.0	477.5
Number Pupils in Study Hall							
Per Day	35.3	46.0	30.0	55.3	112.0	30.0	51.1
Per Week	176.5	230.0	150.0	276.5	560.0	150.0	255.6

Table XXXIII shows that teachers taught 30 more students per day as compared with the superintendents, and teachers also had 20 more students in study hall per day than did the superintendents in the same schools. Superintendents had administrative and supervisory duties which made the total load somewhat balance or which would account for the difference in the number of students taught per day.

The average number of students taught per day was 95.5 which is 37 percent below the maximum of 150 pupils per teacher per day or 21 percent below 120 pupils per teacher per day as recommended by the State Department of Education. The State Department recommends that the total number of pupils per teacher be no more than 120 and that 150 pupils per teacher per day be the maximum load.

Class Size.

Class size is a definite factor of teacher load. While it is impossible to measure this in hours, the author feels that by asking for the time spent in preparing for class and checking the class work the teacher load due to variation in class size was taken into account.

The data from the questionnaires received from the five teacher schools revealed the variation of size of classes as shown by Table XXXIV.

Table XXXIV. Frequency of Class Size.

Pupils Per Class	Sup't. Class Freq.	Tchr. Class Freq.	Total Class Freq.	Total Av. Wtd.
1-5	0	7	7	21
6-10	5	23	28	224
11-15	4	21	25	325
16-20	5	26	31	558
21-25	1	8	9	207
26-30	4	20	24	672
31-35	0	4	4	132
36-40	0	6	6	228
41-45	0	0	0	0
46-50	0	0	0	0
51-55	0	0	0	0
56-60	1	0	1	58

Total 135 2425

Mean = 18 pupils.

Median = 17.2 pupils.

Freq.

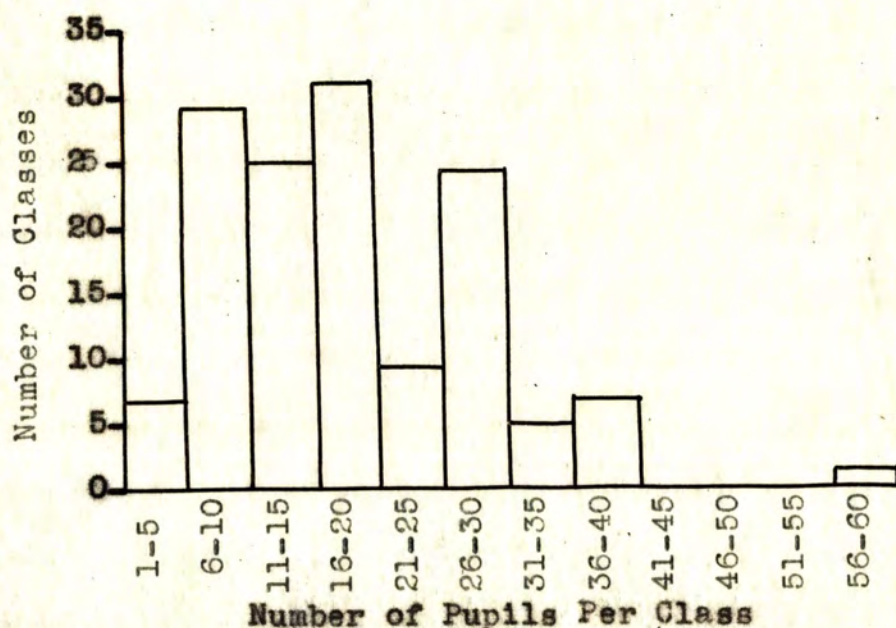


Figure 6. Distribution of Number of Pupils Per Class With Number of Classes.

Table XXXIV shows that there were 11 classes over 30, and 7 classes with 5 or less students. The majority of the classes had from 6 to 20 students enrolled as shown by the frequency of the three groups included in this range.

The data from the questionnaires show that the largest single class for a teacher in the five teacher school was 56 students and the smallest single class was 3 students. These figures are comparable to class sizes of the three and four teacher schools; the largest single class for the three teacher schools being 38 students and for the four teacher school being 69 students, while the smallest single class for the three teacher school was 3 students and for the four teacher school 2 students.

Days on Duty Other Than Regular School Term

Superintendents and teachers have to spend some time in the fall before school opens in order to organize the school year program. Likewise, they remain after school closes in the spring for the purpose of making final records and checking equipment. This work adds to the yearly load and is given here only for its general value.

Superintendents reported on an average of 12.8 days before school opens in the fall, while the teachers reported on an average of only 1.4 days before school opens. Superintendents also remain on duty after school closes in the spring more days than do the teachers; the average, as shown by the data collected, was 6 days for the superintendents and only .4 days for the teachers.

Agriculture teachers, due to project work are exceptions. The agriculture teacher who was in this group of teachers was not considered in the average time of reporting in the fall, or in the time of remaining on duty after school closes in the spring. Agriculture teachers are most generally hired on a longer contract, either 10 or 12 months; this instructor was on duty the full 12 months of the year.

Part II

Items Directly Influencing Teacher Load

The following information deals primarily with the data taken from the questionnaires to determine the clock hours of teacher load for the five teacher schools.

Classroom and Study Hall Duties

The questionnaires revealed that the five teacher schools divide the school day in one of three ways: The eight period day, the seven period day or the six period day. Table XXXV page 104 shows the division of the school day together with the frequency of the school day patterns and the total hours resulting from these patterns.

Table XXXV. Frequency of Patterns-Total Periods & Hours Per Day.

Patterns of School Day Class St.H. Free			Frequency			Total periods a X f plus b X f	Total Hours per day Av. Wtd.
Total			Sup't. Freq.	Tchr. Freq.	Sup't. Tchr. Freq.		
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
<u>8 period day</u>							<u>g X .75</u>
8	0	0	0	2	2	16	12
7	1	0	0	2	2	16	12
7	0	1	0	1	1	7	5.25
6	2	0	0	2	2	16	12
6	1	1	0	4	4	28	21
5	3	0	1	0	1	8	6
5	2	1	0	1	1	7	5.25
5	1	2	1	0	1	6	4.5
4	4*	0	0	2	2	16	12
4	2	2	0	1	1	6	4.5
3	1	4	2	0	2	8	6
<u>7 period day</u>							<u>g X .86</u>
6	1	0	0	1	1	7	6.02
5	1	1	0	3	3	18	15.48
3	1	3	1	0	1	4	3.44
<u>6 period day</u>							<u>g X 1.</u>
6	0	0	0	1	1	6	6
5	1	0	0	3	3	18	18
4	0	2	1	0	1	4	4
Total					29	153.44	

Mean = $153.4 \div 29 = 5.3$ hours per day or 26.5 hours per week per teacher.

* Indicates that 1 teacher conducts library during study hall period.

In general the superintendents have more free periods than do the teachers as evidenced by Table XXXV, page 104, in the c, d and e columns. They spent approximately 2/3 of their time teaching class and supervising study hall and were therefore included with the teachers in comparing the school day patterns.

Because of administrative duties, superintendents in these schools are not expected to teach a full day, however, as evidenced by Table XXXV one superintendent had five classes and three study halls. The other superintendents had arranged for from 2 to 4 vacant periods per day.

Twelve out of 23 teachers in these schools had classes or study hall supervision the entire day. The other teachers had at least 1 free period.

Teacher load resulting from classroom and study hall was derived from the mean time that was required of a teacher in teaching class and supervising study hall. The teachers of the five teacher school group spent a mean time of 26.5 hours per week per teacher. The total mean load in hours per week for this group was 65.55 hours as shown on page 114. Therefore, 26.5 hours per week per teacher, the time required for classroom and study hall duties is equal to 40.4 percent of the total weekly load. Thus, over 50 percent of the teachers' time is left to be used for other school duties, a fact often unappreciated by the public or even sometimes by the boards of education and school administrators.

Extra-Curricular Activities

As extra-curricular activities are in all school systems accepted as essential and part of the program, it is worthwhile to note the number of the activities for which teachers were responsible as well as the time in hours per week. In the five teacher schools the success of the activities should be greater than in the other classifications of schools in this study, from the fact that there are more teacher to aid with the activities. The number of activities which the teachers and superintendents sponsored is given in Table XXXVI.

Table XXXVI. Number of Extra-curricular Activities Per Superintendent and Teacher.

No. of Activities	Sup't. Freq.	Tchr. Freq.	Sup't. Tchr. Freq.
Total	6	23	29
0	0	1	1
1	0	6	6
2	2	10	12
3	2	4	6
4	1	1	2
5	1	1	2

By observing Table XXXVI one notes that there was one teacher who had no extra-curricular activity to sponsor. There were 10 teachers and 2 superintendents with 2 activities to be responsible for.

In order to account for the kind of activity and the time spent in sponsoring the activity the questionnaires

were organized so that the teachers could check the activity and give the time spent per week. Table XXXVII gives the kinds of activities and the time consumption and frequency of the extra-curricular activities. See Chapter III page 30, for the method of weighting.

Table XXXVII. Frequency and Time Consumption of Extra-Curricular Activities.

Extra-curricular Activities	Sup't. Hrs. per Freq. wk. Av.		Tchr. Hrs. per Freq. wk. Av.		Sup't. Hours Tchr. per wk. Freq. Av. Wtd.		Total Wtd. Av.
Total	6		23		29		
Class Adviser	5	0.9	15	0.8	20	0.8	16.0
Direct Dramatics	3	3.7	5	1.4	8	2.3	18.4
Direct Play Production	1	10.0	6	15.8	7	14.9	104.3
Direct Athletics	2	2.9	6	4.0	8	3.7	29.6
Direct Music	0	0	9	6.3	9	6.3	56.7
Other Ex.-curricular Activities	3	1.7	5	3.6	8	2.9	23.2
	Total				60		248.2

Mean = $248.2 \div 60 = 4.1$ hours per activity.

Mean = $60 \div 29 = 2.1$ activities per teacher.

Therefore $4.1 \times 2.1 = 8.6$ hours per week per teacher.

From Table XXXVII one observes that 20 of the 29 teachers were class advisers. Play production required the largest total amount of time in comparison with any of the other activities, and the teachers who directed music spent the next largest amount of time.

Other extra-curricular activities consisted of a student council, a school paper, library work and a trio as reported on the questionnaires.

Teacher load resulting from extra-curricular activities was derived from the mean time that was required of a teacher in conducting the activity. The teachers of the five teacher group spent a mean time of 8.2 hours per week per teacher. The total mean load in hours per week per teacher for this group was 65.55 hours as shown on page 114. Therefore, 8.2 hours per week per teacher, the time required for extra-curricular activities is equal to 12.5 percent of the total weekly teacher load.

Miscellaneous School Duties

In considering miscellaneous school duties, it was found by the data from the questionnaires that there were no activities not reported on by some of the teachers. Table XXXVIII shows this to be the case, together with the frequency and time consumption of the miscellaneous school duties.

Table XXXVIII. Frequency and Time Consumption of Miscellaneous School Duties.

Miscellaneous School Duties	Sup't. Hrs. per		Tchr. Hrs. per		Sup't. Hours		Total
	Freq.	Av.	Freq.	Av.	Tchr. per wk.	Wtd.	
					Freq.	Av.	Av.
Total	6		23		29		
Preparing for Class	6	5.0	23	8.7	29	8.0	232.
Checking Class Work	6	5.2	23	9.0	29	8.3	240.7
Before Nine	6	3.3	23	2.5	29	2.7	72.3
After Four	6	2.5	23	2.0	29	2.1	60.9
School Work Saturday	5	2.8	16	3.5	21	3.3	69.3
School Work After Six	3	6.3	14	4.6	17	4.9	83.3
Teacher Meetings	3	0.8	4	4.4	7	2.8	19.6
School Work Noon hours	2	4.0	11	1.8	13	2.2	28.6
Time for Slow Student	2	2.0	5	2.0	7	2.0	14.
Time for Superior Student	1	1.0	4	1.7	5	1.6	8.
			Total		186		834.7

Mean = $834.7 \div 186 = 4.5$ hours per week per duty.

Mean = $186 \div 29 = 6.4$ duties per teacher.

Therefore $4.5 \times 6.4 = 28.8$ hours per week per teacher.

As will be noted from Table XXXVIII teachers all reported the time they spent in preparing for classes and for checking work. These duties required approximately the same amount of

time and exceeded all other single duties. Five other duties show a similarity in time consumption of 2 and some fraction hours.

From information collected from the questionnaires it was also found that the highest number of hours spent in preparing for class was 20 hours per week by 1 teacher and it was also found that the same teacher spent 40 hours per week checking work. The least time spent in class preparation was 2 hours per week and the same teacher spent 5 hours per week checking work. The least time spent for the two items, class preparation and checking work, was by an individual teacher who reported 7 hours.

Teacher load resulting from miscellaneous school duties was derived from the mean time that was required of a teacher in doing that duty. The teachers of the five teacher group spent 28.8 hours per week per teacher. The total mean load in hours per week per teacher for this group was 65.55 hours as shown on page 114. Therefore, 28.8 hours, the time required for miscellaneous school duties, is equal to 43.9 percent of the total weekly load. Thus, 3.5 percent more time was spent for these duties than for the classroom and study hall duties.

Committee Duties

The questionnaires revealed that the teachers in general of the five teacher schools failed to report for this section. This indicates an indefinite organized committee system in this classification of schools. Table XXXIX shows the various committees which were reported and the time spent for the committee duties.

Table XXXIX. Frequency and Time Consumption of Committee Duties

Committee Duties	Sup't. Hrs. per		Tchr. Hrs. per		Sup't. Hours		Total Wtd. Av.
	Freq.	Av.	Freq.	Av.	Freq.	Av. Wtd.	
Total	6		23		29		
School Supplies	1	?	1	?	2	?	?
Pupil Control	1	2.0	1	?	2	1.	2.
Athletics	2	1.5	1	?	3	.5	1.5
Program of Studies	1	?	1	?	2	?	?
Examination	0	0	1	?	1	?	?
School Function	1	.5	1	?	2	.5	1.
Enrollment	0	0	1	?	1	?	?
Any Other	0	0	2	.5	2	.5	1.
Total					9		5.5

Mean = $5.5 \div 9 = .6$ hours per week per duty.

Mean = $9 \div 29 = .3$ duties per teacher.

Therefore, $.6 \times .3 = .18$ hours per week per teacher.

? Indicates that teachers reported no time for duty, and therefore individuals were not totaled nor averaged to find means.

As shown by Table XXXIX there were some teachers and superintendents who served on a committee, but were not able to give the time required. The frequency is low for these duties indicating that the schools did not have a definitely organized committee system. In some instances the teachers stated that they had no definite assignment in regards to any committees.

Teacher load resulting from committee duties was derived from the mean time that was required of a teacher in doing that duty. The teachers of the five teacher school group spent a mean time of .18 hours per week per teacher. The

total mean load in hours per week for this group was 65.55 hours, as shown on page 114. Therefore, .18 hours per week per teacher, the time required for committee duties is equal to .3 percent of the total weekly load.

Community Duties

Table XL gives the information concerning the community duties of the five teacher high schools. The duties of this classification were quite similar to those of the three and four teacher groups. For method of weighting see Chapter III, page 30.

Table XL. Frequency and Time Consumption of Community Duties.

Community Duties	Sup't. Hrs. per		Tchr. Hrs. per		Sup't. Hours		Total
	Freq.	Av.	Freq.	Av.	Tchr. per wk.	Wtd.	
Total	6		23		29		
Church Work	2	1.0	11	1.8	13	1.7	22.1
P. T. A.	2	1.0	7	0.9	9	0.9	8.1
Lodge or Club Work	1	1.0	2	2.5	3	2.0	6.0
Scout Work	0	0	5	3.0	5	3.0	15.0
Hobby Club	0	0	1	1.0	1	1.0	1.0
Other Duties	1	1.0	1	2.0	2	1.5	3.0
			Total		33		55.2

Mean = $55.2 \div 33 = 1.7$ hours per duty.

Mean = $33 \div 29 = 1.1$ duties per teacher.

Therefore, $1.7 \times 1.1 = 1.87$ hours per week per teacher.

As noted by Table XL the frequency was low for all the duties. The table shows that scout work was the duty which required the greatest amount of time of any single duty. The

greatest number of teachers reported that they did church work. The teachers reported the lowest time consumption for P. T. A. work.

The questionnaires revealed that the other community duties consisted of committee work for an American Legion Post and an evening school which was conducted by the agriculture instructor.

Teacher load resulting from community duties was derived from the mean time that was required of a teacher in doing that duty. The teachers of the five teacher school group spent a mean time of 1.87 hours per week per teacher. The total mean load in hours per week for this group was 65.55 hours as shown page 114. Therefore, 1.87 hours per week per teacher, the time required for community duties, is equal to 2.9 percent of the total weekly load.

Part III

Evaluation of Teacher Load for Five Teacher High Schools

Teacher load for the five teacher high schools was found by summing the load items which were given in clock hours. The final total mean load was interpreted in hours per week per teacher.

The chance for any overlapping of time in any of the items would be no different from that of the three teacher schools. (See Chapter V, page 58)

Summation of Load Items

In order to evaluate the average clock hours of teacher load from the foregoing phases of this study one needs to

total the mean load in hours per week per teacher derived from each separate phase. Table XLI shows the mean load in hours per week per teacher of the 5 load items which when added together give the total weekly load for the five teacher school group.

Table XLI. Total Mean Load Per Week Per Teacher for the Five Teacher Schools.

Load Items	Hours Per Week Per Teacher	Percent of Total Load
Miscellaneous School Duties	28.8	43.9
Classroom and Study Hall Duties	26.5	40.4
Extra-Curricular Duties	8.2	12.5
Community Duties	1.87	2.9
Committee Duties	.18	.3
Total Mean Load	65.55	100

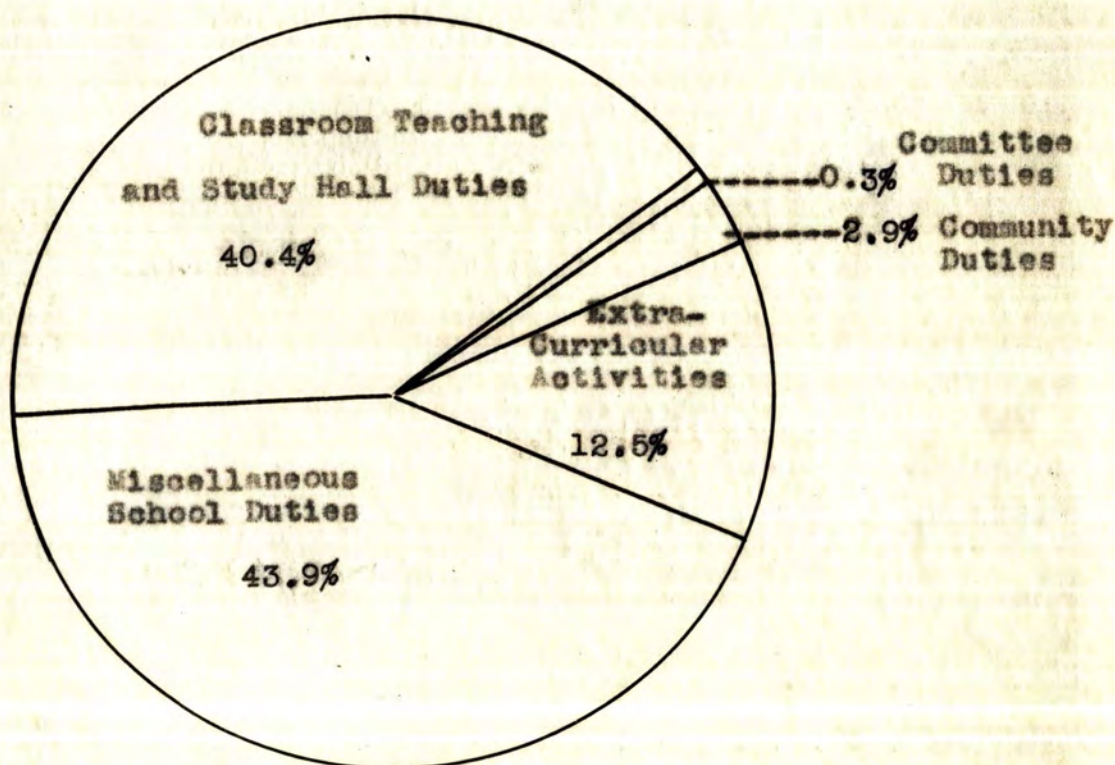


Figure 7. How the Teachers' 65.55 Hour Week is Spent.

As shown by Figure 7 the miscellaneous school duties required the greatest percentage of the teachers' time of the five teacher school group. However, there is little difference between the load due to classroom teaching and study hall duties and the miscellaneous school duties. These two items represent the major part of the teaching load. The fact that the miscellaneous school duties exceed the class room and study hall duties by 3.5 percent is that the teachers did not have as heavy a class load and therefore were able to devote more time to such items as class preparation, checking papers and the other duties under this section.

A small percentage of the time was devoted to committee duties, which goes to show that it was a small part of the teachers' working week; while community duties did require a very definite amount, nearly 3 percent as shown by Figure 7.

The extra-curricular activities required 12.5 percent of the teachers' time, which was exactly $1/8$ of the working week. This time consumption does not seem out of proportion with respect to the other items.

A 65.55 hour week as found by totaling the five load items directly influencing teacher load, is an extra heavy week as compared to the working weeks of other professions or occupations, which are generally on the 48 hour basis or the 40 hour week of many of the industries.

Teacher Load Calculated According to Douglass' Formula*

The technique used in this study analyzes teacher load in terms of hours per week as did Altstetter# in his study. Another common measure of teacher load is by the used of the Douglass Formula. Thus, an individual teacher, as nearly typical as possible, was selected from the five teacher school group, and her load items as given by the questionnaires were expressed according to the formula.

In selecting an individual teacher from the five teacher group it was considered best to choose one with an eight period school day pattern, and who was teaching 6 classes and has 1 study hall supervision and a free period. This is a common arrangement for the teachers in the five teacher schools. The individual teacher's extra-curricular activities were also considered and found that she took part in such activities.

As taken from the questionnaire Teacher C meets four sections of English; English I, II, III, and IV, with enrollments of 35, 36, 28 and 36 students respectively. In addition she meets a section of French of 10 students, and a section of Latin II of 3 students. The class periods 45 minutes in length. This teacher also supervises five study halls a week, she gives on an average of 15.88 periods a week to cooperations, including dramatics, play production, girls' athletics, library,

* See Chapter II, page 14.

See Chapter II, page 18.

and school paper.

By employing the Douglass formula to this individual teacher, the following results:

$$TL = (30 - \frac{2 \times 0}{10}) + \frac{740 - 20 \times 30}{100} + \frac{20.88}{2} \left(\frac{45+55}{100} \right)$$

TL = 41.84 load units weekly.

"Douglass reports from a survey made of 76 teachers in the Edison High Schools, Minneapolis, and 228 teachers in 113 other high schools of Minnesota and adjoining states that the median is 31 units, the lower quartile 26.5 units and the upper quartile 34.7 units as teacher load norms".(1)

The load of 41.8 units as found for this selected teacher from the five teacher schools is 7.14 units above the upper quartile of 34.7 units. Therefore, according to the Douglass formula the load of this individual teacher is termed heavy. She herself expressed the load as heavy, and this study of teacher load also finds the teachers' working a 65.55 hour week, which is heavy.

Teachers' Personal Opinion of Load

In section VII of the questionnaire* the question "How do you consider you load? (a). light, (b). medium, (c). heavy," was asked. This question gave the superintendents and teachers a chance to express the load as they knew it to be. While this opinion does not affect the results of this study, it adds an

(1) Harl R. Douglass, Organization and Administration of Secondary Schools, p. 120.

* See Appendix.

interesting personal estimation by the teachers themselves as to the load they were carrying.

Table XLII shows the comparison of opinions of the superintendents and teachers and also a combination of the frequencies of opinions.

Table XLII. Teacher Load as Judged by the Teachers and Superintendents themselves.

Rating of Load	Sup't. Freq.	Tchr. Freq.	Total Freq.
Total	6	23	29
Light	0	1	1
Medium	2	13	15
Heavy	3	9	12

One superintendent did not express his opinion of the load, therefore, the frequency of the superintendents is only 5 and the total frequency only 28.

The 1 teacher who expressed her load as light as shown by Table XLII was a part time teacher, therefore it is to be expected she would judge it as such.

It is to be expected that the greatest number of opinions would be expressed as either medium or heavy when the totals from this study show a mean load of 65.55 hours per week per teacher.

Summary

The methods here used for determining the average load of the teachers in the five teacher high schools; a 65.55 hour week as found by this study, a 41.84 load unit according to the Douglass formula, and a personal opinion of the teachers

themselves ranging from medium to heavy, are in accord with each other. Then too, by comparing the clock hour load of the teachers of this study with the 60 hour week that Altstetter* found in his study, "Do Extra Tasks Add an Extra Day to the Teachers' Week" it would be possible to conclude that the teachers in this group of schools are carrying an extra heavy load.

By applying the Douglass formula# to an individual teacher, as nearly typical as possible, the load units of 41.84 was found to range 7.14 units above the upper quartile norms, which would indicate an extra heavy load.

In consideration of the teachers' own opinion of their load it was found that they judged it as either medium or heavy, which would also bear out the fact that the load was heavy.

Thus, in all measures used in determining the load of the teachers of the five teacher schools, the conclusions are about the same; that the average load is extra heavy.

* See Chapter II, page 18.

See Chapter II, page 14.

Chapter VIII

Comparison of the Total Weekly Load of the Three, Four and Five Teacher Schools

In order to show a comparison of the load items and total weekly load for the teachers of the three groups of schools, it was necessary to tabulate the items which made up the total load in hours per week.

The points which entered into the clock hour load items have been analyzed and discussed separately for the three, four and five teacher schools in Chapters V, VI, VII, respectively. These five main points are namely, Classroom and Study Hall Duties, Miscellaneous School Duties, Extra-Curricular Activities, Committee Duties and Community Duties. Under the separate discussions of the load items the mean hours per week per teacher were determined, and in this chapter it is the objective to show the comparison of the mean hours per week per teacher for the separate load items for the three groups of schools, together with the total mean hours per week per teacher.

Table XLIII gives the comparison of the load items for each classification of school with the total mean hours per week per teacher per school. The load items are also expressed in the percent of the total weekly load in Table XLIII. The totals for teachers in each case means teachers and superintendents combined. This is justified by the fact that the superintendents put in from $2/3$ to $5/6$ of their school time teaching and supervising study halls.

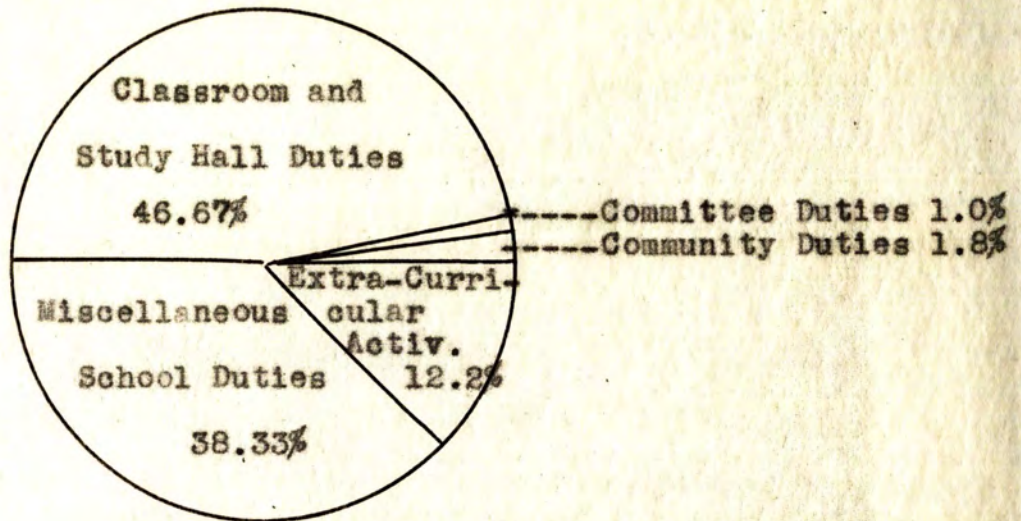
Table XLIII. Load Items Compared in Hours and Percent for the Three, Four and Five Teacher Schools.

Load Items	Three Tchr. Schools		Four Tchr. Schools		Five Tchr. Schools	
	Hours	Percent	Hours	Percent	Hours	Percent
Total Cases	24		92		29	
Classroom & St.H.Duties	28.	46.67	28.	44.2	26.5	40.4
Miscellaneous School Duties	23.	38.33	27.	42.7	28.8	43.9
Extra-Curri. Activities	7.3	12.2	6.2	9.8	8.2	12.5
Community Duties	1.1	1.8	1.54	2.4	1.87	2.9
Committee Duties	.6	1.0	.55	.9	.18	.3
Total	60.0	100.0	63.29	100.0	65.55	100.0

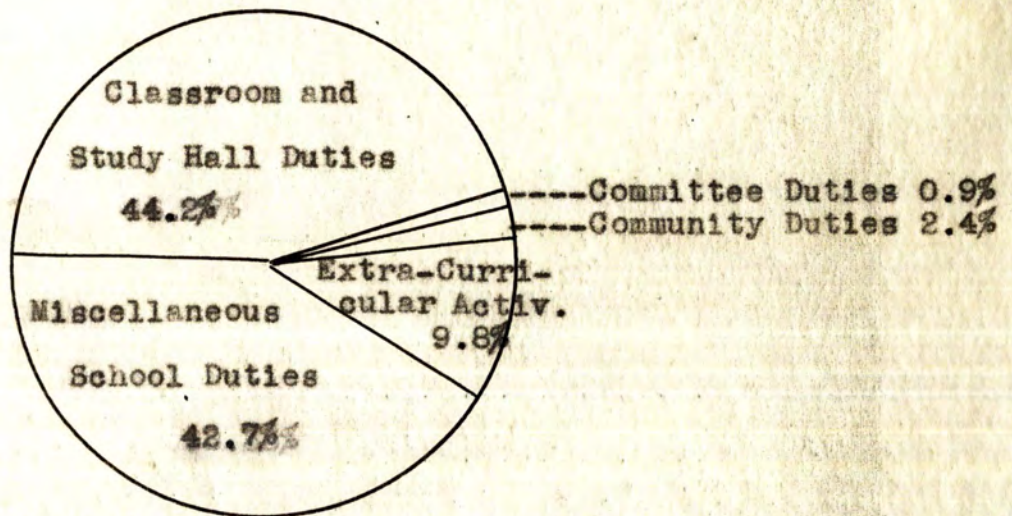
One will note from Table XLIII that the total weekly loads of the three groups shows a very definite increase in clock hours. This was accounted for by the definite increase in the time spent on miscellaneous school duties. The teachers of the five teacher group reported a high time consumption for extra-curricular activities, with a corresponding decrease in the time spent for classroom and study hall duties.

In general, there was a similarity in clock hours of the separate load items, and a variation of 5.55 hours in the total weekly loads between the high of 65.55 hours per week for the five teacher schools and the low of 60 hours per week for the three teacher schools.

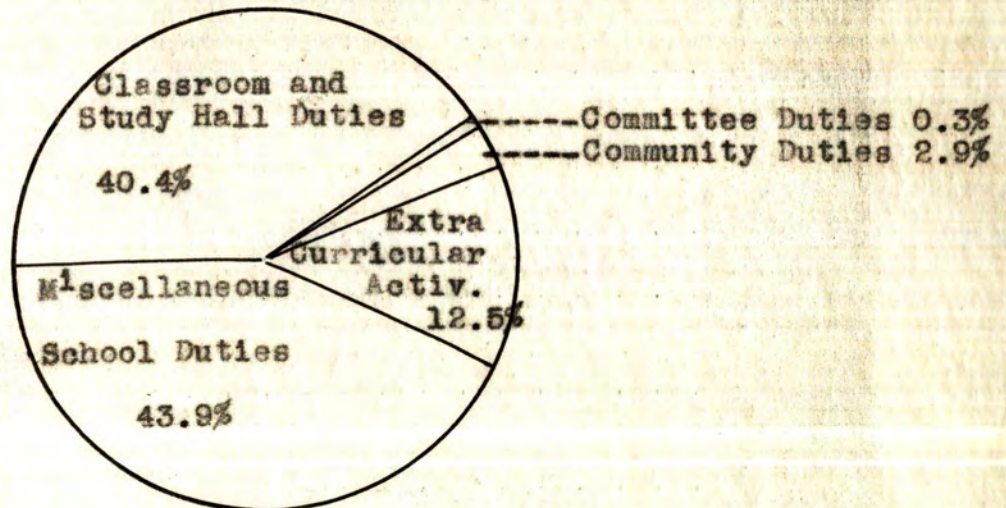
Figure 8 shows graphically how the teachers' weekly hours were spent for the three, four and five teacher school groups.



Three Teacher School 60 Hour Week



Four Teacher School 63.29 Hour Week



Five Teacher School 65.55 Hour Week

Figure 8. Comparison of Mean Load Items of Three Groups of Schools.

The significant point of comparison as shown by Figure 8 is that there was a striking similarity in the way in which the teachers of the three groups of schools divided their time during the week.

The final evaluation of teacher load for the teachers of the three, four and five teacher high schools of South Dakota as represented by the sampling of schools from which this study was made, results from the use of four criteria.

The first criterion was by making a comparison with the results found by Altstetter of Peabody College, Nashville, Tennessee*, where he found that extra tasks make a difference in the weekly load of teachers--so great a difference that many teachers work a 60 hour week. As found by the present study the clock hours were 60, 63.29 and 65.55 hours per week per teacher for the three, four and five teacher schools respectively.

A second criterion was the results obtained when applying the Douglass formula# to an individual teacher, as nearly typical as possible, from each of the three groups of schools. The results were 32.81, 39.65 and 41.84 load units for the three, four and five teacher schools respectively.

For the third criterion the teachers' own personal opinion was used. Of the 145 superintendents and teachers, 72 reported a heavy load, 68 reported a medium load, 3 reported a light load and 2 did not express themselves at all. It was evident that the majority judged their load as heavy.

* See Chapter II, page 18.

See Chapter II, Page 14.

The fourth and final criterion was the results of the clock hours as analyzed by this study wherein the author found that the teachers of the three teacher group work a 60 hour week, which is a relatively heavy week when compared with the 48 to 40 hour week of other professions and with the 48 to 36 hour week of occupations, trades and industries; the teachers of the four teacher group work a 63.29 hour week, which is a heavy week when compared with other professions, occupations and industries; and the teachers of the five teacher group work a 65.55 hour week, which is an extra heavy week when compared with other professions, occupations and industries. Thus, from the findings of this study one may conclude that the teachers of the three, four and five teacher high schools of South Dakota, as represented in this sampling, are carrying a heavy teacher load.

Personal Comments and Remarks of Superintendents and Teachers

The questionnaires* gave the superintendents and teachers an opportunity to add any comments or remarks which they felt may add to this study of teacher load.

Many questionnaires were unanswered in this respect, although there were comments which were worthwhile to note as well as some adverse criticisms as follows: Two teachers beleived that "a better school system would result if the school board would employ one more teacher". This remark was made by teachers in the three teacher school group.

* See Appendix.

One teacher spent "too much time for preparation as subjects are outside of major or minor fields". Two teachers felt that there was "too much activity work expected". While another comment revealed that "patrons expect too much time be spent on extra-curricular work which in turn takes valuable time from actual school teaching and preparation".

One principal said his "load always seems heavy", but feels he must do his best in order to succeed, therefore isn't complaining. One superintendent in the four teacher group believed that he had "a fine setup, no teachers overworked and none underworked". Another superintendent had "trouble with teachers leaving each year because of low salary, therefore there is added work in breaking in the inexperienced teachers". One superintendent believed that "part 1 and 4 of the questionnaire was important to show the teachers what administrator has to do". One teacher worked "10 to 12 hours 7 days a week on school or community work".

One superintendent "can not list time-the above is approximate-always too busy". Another superintendent mentioned "a seasonal overload, due to preparing for interscholastic contests, etc.". "a difficulty of extra-curricular activities using valuable time of both teachers and self" was remarked by a superintendent. Still another superintendent commenting mentioned the "importance of time given to administrative duties, class visitation and supervision not truly appreciated by others".

N.Y.A. was mentioned by one superintendent as being an "extra load to supervise and administer, dormitories also use extra time, and in general too many details devolve upon the superintendent". One superintendent believes that "parts IV and V would necessarily be rather indefinite and of little practical value in a scientific study"; while another felt the study would "be very valuable".

While these comments and remarks are not in any sense a measure by which to judge load they add a personal element in regards the makeup of the questionnaire as well as the study in general. The remarks bring too light ideas concerning individual opinions of the relative difficulty of various duties.

Chapter IX

Conclusions and Recommendations

Conclusions

The purpose of this study of teacher load in the three, four and five teacher high schools of South Dakota was to determine in clock hours the mean total teacher load per week per teacher. In order to accomplish this purpose thirteen objectives as made in Chapter I, page 11 and 12 were analyzed and data and information given to reveal the facts concerning their importance in regard to teacher load.

The conclusions based on the findings of this study are given here. They are given in parts representative of the discussions in the former chapters, as follows: Part 1 conclusions drawn from "School Executives' Duties Compared", Part 2 conclusions drawn from "General Conditions Affecting Teacher Load", and Part 3 conclusions drawn from "Items Directly affecting Teacher Load".

Part 1

Conclusions Drawn from Chapter IV, School Executive Duties Compared, for the three, four and five teacher high schools of South Dakota. Each duty was expressed as a percentage of the total mean time spent by superintendents for executive and teaching duties.

1. Teaching Duties.

a. Superintendents spent 18.4 hours per week on teach-

ing duties, which was 42.2 percent of the total time.

2. Administrative Duties.

- a. Superintendents spent 8.5 hours per week on administrative duties, which was 19.6 percent of the total time.

3. Supervisory Duties.

- a. Superintendents spent 4.3 hours per week on supervisory duties, which was 10 percent of the time.

4. Pupil Aid.

- a. Superintendents spent 3.7 hours per week aiding and consulting pupils, which was 8.5 percent of the total time.

5. Teacher Aid.

- a. Superintendents spent 2.8 hours per week aiding and consulting teachers, which was 6.4 percent of the total time.

6. Classroom Visitation.

- a. Superintendents spent 2.4 hours per week visiting classrooms, which is 5.5 percent of the total time.

7. Other General Duties.

- a. Superintendents spent 3.3 hours per week doing other general duties, which is 7.6 percent of the total time.

Part 2

Conclusions drawn from chapters V, VI and VII, of the

General Conditions Affecting Teaching Load for the three, four and five teacher high schools. The 40 superintendents and 105 teachers were combined to make a total of 145.

1. Degrees Held.

a. All of the 145 superintendents and teachers held either a B.A. or B.S. degree.

(1) One teacher in the three teacher high school; 6 superintendents and 4 teachers in the four teacher high schools; and 1 superintendent and 1 teacher in the five teacher high schools reported that they had a M.A. or M.S. degree besides the B.A. or B.S. degree. In other words 13 of the 145 superintendents and teachers reported that they held an advanced degree.

2. Subject Matter Fields Taught In.

a. Of the 145 superintendents and teachers 109 taught in either two or three fields. Twenty-two taught in 1 field, 12 taught in 4 fields and 2 taught in 5 fields.

3. Subject Matter Fields Taught In With and Without Preparation.

a. Teachers usually taught in two subject matter fields in which they were prepared, so far as majors and minors were concerned, as compared to no more than one subject "without" their field of preparation, which means that they did not have a major or minor in such field.

4. Pupil-Teacher Ratio.

- a. Pupil-teacher ratio was found to be 11 to 1, 19 to 1, and 17 to 1 for the three, four and five teacher schools respectively. It was evident from these findings that pupil-teacher ratio was well below 25 to 1 as recommended by the State Department.

5. Pupil Recitations.

- a. Pupil recitations were found to be 67.4, 98 and 95.5 for the three, four and five teacher schools respectively. It was evident from these findings that pupil recitations per day per teacher were well below the maximum of 150 pupils per day or 120 pupils per day as recommended by the State Department.

6. Class Size.

- a. The median class size was 12.5, 16.1 and 17.2 for the three, four and five teacher schools respectively. From these findings it was evident that the size of classes taught was well below 30 pupils per class as recommended by the State Department.

7. Days on Duty Other Than Regular Term.

- a. a. Superintendents of the three groups of schools reported approximately 2 weeks before school opens in the fall and remained on duty approximately 1 week after school closes in the spring, while

the teachers reported only 1 day before school opens in the fall and remained only 1 day after school closes in the spring.

Part 3

Conclusions drawn from Chapters V, VI and VII, of Items Directly Influencing Teacher Load.

1. Classroom and Study Hall Duties.

- a. The most common way of dividing the school day was into eight periods; 75, 75 and 65.5 percent of the teachers of the three, four and five teacher schools respectively taught with the eight period day pattern. Teachers usually conducted six classes and supervised two study halls during the day.
- b. The seven period day was found in the four and five teacher high schools but not in the three teacher high schools. It was used by 22.8 percent of the teachers in the four teacher schools and by 7.25 percent of the teachers in the five teacher schools.
- c. The six period day was found in all three groups of school systems, to the extent of 25, 2.2 and 17.25 percent for the teachers of the three, four and five teacher schools respectively.
- d. Of the 40 superintendents, 15 percent of them conducted class and supervised study hall the entire day; and of the 105 teachers 71.4 percent of them conducted class and supervised study hall the

entire day.

- e. The teacher load resulting from classroom and study hall duties was 28, 28 and 26.5 hours per week per teacher or 46.67, 44.2 and 40.4 percent of the total teacher load for the three, four and five teacher high schools respectively. Thus, over 50 percent of the teachers' time was spent on duties other than classroom and study hall.

2. Extra-Curricular Activities.

- a. Teachers usually had charge of 2 or 3 activities.
- b. The mean time required for extra-curricular activities was 7.28, 6.2 and 8.2 hours per week per teacher or 12.2, 9.8 and 12.5 percent of the total teacher load for the three, four and five teacher high schools respectively.

3. Miscellaneous School duties, made up mainly of preparing for class and checking class work.

- a. The mean time required for miscellaneous school duties was 23, 27 and 28.8 hours per week per teacher or 38.33, 42.7 and 43.9 percent of the total teacher load for the three, four and five teacher high schools respectively.
- b. Preparing for class required 9.8, 9.4 and 8 hours per week per teacher and checking class work required 6.9, 6.3 and 8.3 hours per week per teacher for the three, four and five teacher schools respectively. By adding the time spent for these 2 duties it would be evident that they take up more than one half of the time spent on the total

miscellaneous school duties.

4. Committee Duties.

- a. The mean time required for committee duties was .55, .55 and .18 hours per week per teacher or 1, .9 and .3 percent of the total teacher load for the three, four and five teacher high schools respectively.

5. Community Duties.

- a. The mean time required for community duties was 1.1, 1.54 and 1.87 hours per week per teacher or 1.8, 2.4 and 2.9 percent of the total teacher load for the three, four and five teacher high schools respectively.

6. Mean total teacher load.

- a. The mean total load was 60, 63.29 and 65.55 hours per week per teacher for the three, four and five teacher high schools respectively.

7. Load of typical teacher determined by the Douglass Formula.

- a. The typical teacher taken from the three teacher school group had a load of 32.81 units which is a relatively heavy load.
- b. The typical teacher taken from the four teacher school group had a load of 39.65 units, which is a heavy load.
- c. The typical teacher taken from the five teacher school group had a load of 41.8 units, which is a very heavy load.

8. Teachers' personal opinion of load.
 - a. Of the 145 superintendents and teachers, 72 reported a heavy load, 68 reported a medium load, 3 reported a light load and 2 did not state their opinion.
9. Results compared to results of similar study made by Altstetter.
 - a. Altstetter found in a study "Do Extra Tasks Add an Extra Day to the Teachers' Week" that teachers did work a 60 hour week.* The total mean loads found in this study are equal to or greater than 60 hours, therefore, it is possible to conclude that the teachers in these schools were carrying a relatively heavy load.
10. Comparison to clock hour working weeks of other professions and of occupations, trades and industry.

Most professional workers are on duty 40 to 48 hours per week, while the working week of occupations is most generally 48 hours, and the working week of trades and industry, which varies because of seasonal fluctuations and unemployment conditions, shows a present trend for a 36 to 44 hour week. (Legislation has been enacted to a certain extent on the working weeks and hours of the various professions, occupations, trades and industries, but so far as the author could find there has been no standards set. The above figures, which are generally accepted as averages are used merely as examples by which to compare the weekly load of teachers as found by this study.)

* See Chapter II, page 18.

In comparison, the working week of the teachers of 60, 63.29 and 65.55 hours for the three, four and five teacher high schools respectively is heavy.

11. In all measures used in determining the load of the 145 superintendents and teachers the conclusions are about the same; that the teacher load is reasonably heavy.

Recommendations

The recommendations were based on an outgrowth of the results found by this study and based on the experience of the author, who has spent seven years as a superintendent and teacher in the field of secondary education. After having served four years as superintendent and teacher in a three teacher high school and after making this study, it seemed possible to make recommendations which may be used as guiding principles for the superintendents and teachers of the three, four and five teacher high schools of South Dakota. The author experienced the difficulty of the problem of teacher load, not only for himself, but for his teacher also, and he feels that the largest problem lies in the community wishing for their school to offer as varied a Program of Studies as the larger schools not considering the inefficiency which might result.

Not only the students and teachers, but also the people of the community will benefit from a well regulated load for the teachers in each school system. The fact that those interested in school work can be made to realize what a teacher

has to do will make for better understanding. Even superintendents and teachers may be able to better understand the work that each other has to do. It is hoped that the recommendations offered will serve the small high schools as a guide for the problem of teacher load, and that anything which is suggested to lighten teacher load will in turn bring to the schools more efficient organization and ultimately better teaching.

The following recommendations are offered:

1. Program of Studies.

- a. It should be the aim and objective of all small high schools to offer its students a program of studies which will give opportunities to pursue a definitely planned and well balanced high school training.
- b. Bulletin Number 16, "Approved Programs of Studies for the Three, four and five Teacher Secondary Schools of South Dakota" offers approved programs and sample schedules for this classification of schools. These programs, if adopted or used as a guide, may prove very beneficial for planning a suitable setup with any of the different phases--such as, Academic, Homemaking, Agriculture, Commercial or a combination of any two.

2. Combinations and Alternations.

- a. Superintendents should plan to combine similar subjects and courses as much as possible, especially where class enrollments are small.

b. Alternations of subjects should be planned over a period of four years, which will offer opportunities to the student and yet not burden the teachers with unusual teaching loads from year to year.

(1). In order to offer variation in subjects offered as well as to secure a uniform program many schools may alternate subjects as English III and IV with such semester courses as Debate, Speech and Journalism.

(2). Plane Geometry may very successfully be alternated with Advanced Algebra.

(3). The sciences may be very easily alternated from one year to the next, say Biology the first year and the succeeding year Chemistry may be offered.

c. With a program of alternations and combinations the number of classes may be decreased to an appreciable extent.

d. Where the number of teachers increase in the school system, the program of alternations and combinations may be broadened for greater subject offerings, or the program may even be decreased.

3. Class Size.

a. Classes with enrollments of more than 30 pupils should be divided and two sections met, however, there is little danger of there being too large enrollments in classes of schools of this class-

ification.

- b. Classes with enrollments of less than 5 pupils, should be combined with a similar class, or if elective in nature may be alternated from one year to another with a subject in the same field—for example a small class in speech or debate may be alternated in the same way --teaching speech or debate for one year and the following year teach English III.

- c. Small classes may also be conducted with either 2 or 3 recitations per week with outside preparation or reference work.

4. Number of Classes and Study Halls Per Day.

- a. Five Classes and one study hall should be a maximum for superintendents during an eight period day. Two free periods should be allowed for administrative and supervisory purposes.
- b. Six classes and one study hall or five classes and two study halls should be a maximum for teachers during an eight period day. Teachers should be allowed at least one free period a day. The value of a free period would be to give a teacher time for rest as well as to lessen the hours per week. The teacher during a free period may also broaden her command of subject matter.

5. Teacher Training.

- a. Teachers should be trained in three subject matter fields-one major and two minors-in order to fit into the small high schools' programs.
- b. Teachers should not attempt or be allowed to teach subjects in which they have not had sufficient collegiate preparation-at least four credit hours of work in the subject.
- c. In placing teachers in a school system they should be placed according to fields of training as much as possible.

6. Extra-Curricular Activities.

- a. The activity program should be so arranged that each teacher would not have the direct supervision of more than two activities-for example, a class adviser and a music director, or class adviser and an athletic coach.
- b. While all schools should provide for a program of extra-curricular activities, the small schools should be careful not to overdo the activities to the extent that the teachers become burdened.
- c. The organization of a Student Council would be helpful in reducing the time which teachers need to spend for extra-curricular activities. A Council composed of representatives of the various classes, and guided by the principal or some teacher could well develop and carry on the program of activities

7. Miscellaneous School Duties.

a. Preparation for Class.

By the use of standard texts, adequate reference material and lesson plans a teacher may be able to lessen the hours spent for class preparation.

b. Checking Class Work.

- (1). By employing an honor system among students ~~for inducement~~ for inducements to study, many tests and quizzes may be eliminated, at least reduced in number.
- (2). Objective methods of testing wherein students could check their own or fellow students' papers may help to reduce the time for teachers.

8. Committee Duties.

- a. If a better established and more organized system of committees were used, the hours spent for some duties could be reduced. An organized student Council or Committee could very successfully take charge of the extra-curricular activities, and many times two or three teachers could more efficiently work on a committee in conducting a class play or school operetta.

9. Community Duties.

- a. A community should not expect its teachers to engage in too many duties outside of the school, especially so if these duties interfere with school work. It is recommended that a teacher be asked to take part in nor

to take part in no more than one outside duty.

10. Teacher Experience.

- a. Superintendents should arrange as much as possible for the new or inexperienced teacher to carry a lighter teacher load as well as cooperational load as compared to the experienced teacher.
- b. The inexperienced teacher should not be expected to supervise large study halls.

11. Total Weekly Load.

- a. The total hours per week per teacher should not be greater than 60 clock hours-the lowest figure found for this study of the three groups of schools. A 60 hour week at most is from 12 to 15 hours more than the working weeks of other professions; and from 20 to 24 hours more than the working weeks of occupations and industries.

12. Score Card for Superintendents.

- a. The average superintendent in this study divided his time according to Figure 9. This, however, is not a standard but may be used as a guide for the superintendents to go by if any are interested in making an account of the time they spend per week.

Load Items	Percent of Total Weekly Time	Your Score	
		Hours	Percent
Teaching Duties	30.0		
Administrative Duties	13.4		
Supervisory Duties	6.7		
Pupil Aid	6.0		
Teacher Aid	4.3		
Visit Classroom	3.7		
Other General Duties	5.2		
Extra-Curric. Activities	12.0		
Community Duties	2.3		
Committee Duties	0.6		
Miscellaneous School Duties	15.8		
Total	100. %		100. %

Figure 9. Score Card for Superintendents to Judge Weekly Load.

Figure 9, the Score Card, is presented so that superintendents may determine the percentage of time spent for each load item and compare his result with the mean average as found by this study.

First the hours or time spent for each load item is calculated, and the total of all items found by adding the column. To find the percentage for each item divide the time required for each item by the total time.

13. Score Card for Teachers.

- a. The average teacher divides his time according to Figure 10. This, however, is not a standard but may be used as a guide for the teachers to go by if any care to make an account of the time spent per week.

Total Time	Percent of Total Weekly Time	Your Score	
		Hours	Percent
Classroom and St. Hall Duties	43.76		
Miscellaneous School Duties	41.64		
Extra-Curric. Duties	11.5		
Community Duties	2.37		
Committee Duties	.73		
Total	100.%		100.%

Figure 10. Score Card for Teachers to Judge Weekly Load.

Figure 10, the Score Card, is presented so that teachers may determine the percentage of time which he spends for each load item and compare his results with the mean average as found by this study. To use the score card follow the instructions as given for superintendents on the preceeding page.

APPENDIX

Questionnaire For Former Study

South Dakota State College
Of Agriculture and Mechanic Arts
Brookings
Department of Education

February 25, 1937

Dear Teacher:

In a study of "Teachers' Loads" the class of High School Administration would like your cooperation by filling in the following questionnaire dealing with teachers' schedules and teachers' loads. We wish to have one filled out by each high school teacher at your school. They are being sent to superintendents who will please distribute to high school teachers and collect same and return same. The enclosed barred envelope, which requires no postage, is for your convenience in returning the questionnaires promptly. A summary will be sent if you are interested. Your cooperation will be greatly appreciated. We would like the returns by March 10. No publicity will be given to individual reports.

Yours respectfully,

C. R. Wiseman
C. R. Wiseman (Instructor)
N. C. Staley (Student)

I. Teacher's Schedule (see second page)

II. Extra-Curricular Duties:

1. Are you a class adviser? (Yes___) (No___). Which Class?_____. Time required per week () hrs.
2. Do you direct or assist in
dramatics () Play
Production () Music () Athletics ()?
Time required per week () hrs.
3. Generally how much time do you spend per week on
checking work and preparing for classes? () hrs.

III. Community Duties:

1. Do you direct or assist in 4-H club work? _____
Time required per week () hrs.
2. Do you help in church work? _____ Time required
per week () hrs.
3. Do you help in scout work? _____ Time required
per week () hrs.
4. Mention any other community duties. ()
() Time required per week () hrs.

IV. Do you consider your teaching load(light, medium, heavy)?

I. Teacher's Schedule and Load.

Directions: In the spaces fill in time, subject taught and number of students in each class. Also indicate by (St.H.) supervision of study hall. Some may conduct class in study hall.

Name of School _____ Teacher _____

	Time	Mon.	Tues.	Wed.	Thurs.	Fri.
1						
2						
3						
4						
			Noon			
5						
6						
7						
8						

Questionnaire for this study of Teacher Load

Brookings, S. Dak.
April 23, 1938

Dear Teacher:

I am making a study of "Teacher's Loads" and I would like your cooperation in filling out the following questionnaire. This information is to be used as the basis for a thesis which I plan to write under the supervision of Dr. C. R. Wiseman of the Education Department of South Dakota State College.

The purpose of this study is to reveal the amount of work that the teacher in the average South Dakota high school of your standing has to do. It will include the class-room work together with outside work.

I wish to have each teacher in the school fill out a questionnaire, and return to the superintendent so that he may collect all and return in the self addressed, inclosed envelope as soon as is convenient. I would like the returns by May 5, 1938. Please.

Yours respectfully,

N. C. Staley
N. C. Staley

Superintendent or Principal: How many hours do you spend doing the following?

- | | |
|-----------------------------------|--------------------|
| 1. Administrative duties | Hrs. per wk. _____ |
| 2. Supervisory duties | Hrs. per wk. _____ |
| 3. Visiting classrooms | Hrs. per wk. _____ |
| 4. Teaching duties | Hrs. per wk. _____ |
| 5. Aiding and consulting teachers | Hrs. per wk. _____ |
| 6. Aiding and consulting students | Hrs. per wk. _____ |
| 7. Other general school duties | Hrs. per wk. _____ |

I. Teaching Schedule: Superintendent, Principal, and Teacher fill in please.

Directions: A. In the spaces fill in the time, (which shows periods per day) subject taught, and number of students in each class.

B. Indicate by (St.H.) supervision of study hall.

Name of School _____ Teacher _____

	Time	Mon.	Tues.	Wed.	Thurs.	Fri.
1						
2						
3						
4						
			Noon			
5						
6						
7						
8						

II. Extra-Curricular Duties:

- A. Are you a class adviser? Which class? _____
Hrs. per wk. _____
- B. Do you direct dramatics? _____ Hrs. per wk. _____
- C. Do you direct play production? _____ Hrs. per wk. _____
- D. Do you direct music? _____
1. Boys' Glee Club _____ Hrs. per wk. _____
 2. Girls' Glee Club _____ Hrs. per wk. _____
 3. Chorus work _____ Hrs. per wk. _____
 4. Band work _____ Hrs. per wk. _____
 5. Orchestra _____ Hrs. per wk. _____
- E. Do you coach athletics? _____
1. Football No. of wks. _____ Hrs. per wk. _____
 2. Basketball No. of wks. _____ Hrs. per wk. _____
 3. Track No. of wks. _____ Hrs. per wk. _____
 4. Physical Training No. of wks. _____ Hrs. per wk. _____
 5. Other activities No. of wks. _____ Hrs. per wk. _____
- F. Other Extra-Curricular duties: _____
Hrs. per wk. _____

III. Miscellaneous Duties:

- A. Do you do school work during noon hour? _____
What type of work? _____ Hrs. per wk. _____
- B. Do you return after six for school work? _____
Hrs. per wk. _____
- C. Do you do school work on Saturday? _____
Hrs. per wk. _____
- D. How much time is spent in teacher meetings? _____
Hrs. per wk. _____
- E. Generally, how much time do you spend:
1. In preparing for classes _____ Hrs. per wk. _____
 2. In checking work _____ Hrs. per wk. _____
- F. Is it required that you devote extra time:
1. For the superior student? _____ Hrs. per wk. _____
 2. For the slow student? _____ Hrs. per wk. _____
- G. What time in the morning are you required to report for work? _____
- H. When after 4 o'clock may you leave the school? _____
- I. How many days before school opens in the fall do you report for work _____ Days.
- J. How many days after school is closed in the spring do you remain on duty? _____ Days.

IV. Committee Duties: Note: If you serve on any of the following committees state the capacity you serve, and the time it requires.

- A. Pupil Control committee (Discipline) _____
1. Duties _____ Hrs. per wk. _____
- B. Program of Studies Committee _____ Hrs. per wk. _____
1. Duties _____
- C. Athletic Committee _____ Hrs. per wk. _____
1. Duties _____
- D. Enrollment Committee _____ Hrs. per wk. _____
1. Duties _____
- E. School Function Committee _____ Hrs. per wk. _____
1. Duties _____
- F. Examination Committee _____ Hrs. per wk. _____
1. Duties _____
- G. School Supplies Committee _____ Hrs. per wk. _____
1. Duties _____
- H. Any Other Committee (On Which You Serve) _____
1. Duties _____ Hrs. per wk. _____

V. Community Duties: Note: If you help with any of the following, state the capacity you serve, and the time it requires.

- A. Do you help with church work? _____ Hrs. per wk. _____
1. Duties _____
- B. Do you help with scout work? _____ Hrs. per wk. _____
1. Duties _____
- C. Do you help with P. T. A.? _____ Hrs. per wk. _____
1. Duties _____
- D. Do you help with lodge or club work? _____
1. Duties _____ Hrs. per wk. _____
- E. Do you conduct a hobby club? _____ Hrs. per wk. _____
1. Duties _____
- F. Mention any other community duty you do. _____
1. Duties _____ Hrs. per wk. _____

VI. General Information:

A. From what college did you graduate? _____

B. What degree do you hold? _____

C. What are your major and minor subjects as listed by college?

Majors

Minors

D. What are your major and minor subjects as listed on your teaching certificate?

Majors

Minors

VII. How do you consider your load?

A. Light _____

B. Medium _____

C. Heavy _____

VIII. Remarks:

A. List what you believe to be important information for this report. I will appreciate any personal comments which you may like to make.

Letter of Transmittal to Superintendent for this Study

Brookings, S. Dak.
April 23, 1938

Superintendent _____
_____, S. Dak.

Dear Mr. _____:

I am collecting information for a thesis which is part of the requirements for a Master of Science Degree in Education. I hope you will help me and that I may be able to return the favor sometime.

Inclosed is a set of questionnaires for your high school faculty, which I trust you will distribute, collect and return to me. I have inclosed a self-addressed, stamped envelope for your convenience and I would like to have you return the questionnaires by May 5, 1938. I realize that the success of its circulation, collection and return will be in your hands; and I will greatly appreciate your doing this for me. Thank you.

Yours truly,

N. C. Staley
N. C. Staley

BIBLIOGRAPHY

Almack, John C. and Bursch, James F. Administration of Consolidated and Village Schools. New York, Houghton Mifflin Company, 1925, pp. 87-89.

Approved Programs of Studies for Three, Four and Five Teacher Secondary Schools. J. F. Hines, Pierre, S. Dak., July 1935, pp. 15-16.

Bibliography of Research Studies in Education. U. S. Department of Interior, Office of Education, Witte, Werner A., Bulletin No. 6, 1937.

Carpenter, W. W. and Rufi, John. The Teacher and Secondary School Administration. Chicago, Ginn & Co., 1931, pp. 123-25.

Educational Directory of South Dakota Schools. J. F. Hines, Pierre, S. Dak., 1937, pp. 15-16.

Douglass, Harl R. Organization and Administration of Secondary Schools. Chicago, Ginn & Co., 1932, pp. 114-118.

Douglass, Harl R. and Boardman, C. W. Supervision in Secondary Schools. Boston & New York, Houghton Mifflin Company, 1934, p. 487.

Nations' Schools. Altstetter, M. L. Vol. XVI, Dec. 1935, p. 35-36.

Nations' Schools. Baker, H. Leigh, Vol. XVII, Feb. 1936, p. 27.

Nations' Schools. Pauly, Frank R. Vol. VI, Oct. 1935, p. 20.

Nations' Schools. Eells, Kenneth W. Vol. XXIII, Feb. 1939, p. 51.

Nations' Schools. Quanbeck, Martin and Douglass, Harl R., Vol. XV, pp. 37-38.

Nations' Schools. Taylor, William, and Douglass, Harl R., Vol. XVIII, August 1936, pp. 35-37.

North Central Association Quarterly. Vol. I, 1926, pp. 350-359.

North Central Association Quarterly. Vol. VII, 1932-33, p. 70.

North Central Association Quarterly. Vol. X, 1935-36, p. 238.

North Central Association Quarterly. Vol. XI, 1936-37, pp. 374-75.

North Central Association Quarterly. Vol. XII, 1937-38, p. 106.

School and Society, Newmann, Irene F. Vol. XLIII, 1935, pp. 671-73.

School Review, Douglass, Harl R. and Saupe, Ethel M. Vol. XLIII,
June 1935, p. 428-33.